

PLAN FOR SELF-IMPLEMENTING CLEANUP OF PCB REMEDIATION WASTE -- PHASE I 7 DEPOT STREET SOUTH WINDHAM, MAINE

Prepared for:

Rence Lewis Village at Little Falls, LLC 2 Market Street, 6th Floor Portland, Maine 04101

Prepared by:

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> Project No. 046016 April 28, 2006

D. Todd Coffin Maine Certified Geologist No. 310

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Ransom Project 046016 April 25, 2006

1.0 INTRODUCTION

On behalf of Village at Little Falls, LLC, Ransom Environmental Consultants, Inc. (Ransom) has prepared this notification for self-implementation of Polychlorinated Biphenyl (PCB) Remediation Waste identified at the former Keddy Mill, located at 7 Depot Street in South Windham, Maine (the Site). PCB Remediation Waste has been identified both inside the Site Building and at the exterior of the Site. Ms. Renee Lewis, representative of Village at Little Falls, LLC, is authorized to signed the certification statement required by §761.61(a)(3)(E). Her contact information is:

Ms. Renee Lewis 2 Market Street, 6th Floor Portland, Maine 04101

(207) 772-7219

The certification statement is attached as Appendix A. A Site Location Map is attached as Figure 1.

Based on the characterization activities performed at the Site, Ransom determined that interior building surfaces and soils beneath and exterior to the building are PCB-contaminated. The source of the PCBs identified at portions of the interior of the Site Building originated from:

- 1. Release(s) of PCB-mineral oil dielectric fluid (PCB-MODF) from electrical equipment located within the mill building;
- 2. Tracking of PCB-MODF onto surfaces in parts of the Site Building where PCB-MODF oil spills had not necessarily occurred; and
- 3. PCB-contaminated fuel oil that remains in distribution piping inside the mill building, and in some areas has leaked onto floors and walls from this piping.

PCB-contaminated soils were identified in three areas:

- 1. In, and adjacent to, a sump located in the basement of the former Melt Building;
- 2. On the ground floor of the Melt Building where broken concrete flooring has exposed subgrade soils; and
- 3. On the ground floor of the Storage and Manufacturing portion of the building where broken concrete flooring has exposed sub-grade soils.

Village at Little Falls, LLC intends to remediate PCB-contaminated concrete floors and walls such that PCB concentrations remaining in concrete and other porous materials are reduced to I milligram/kilogram (mg/kg) or less. PCB-contaminated soil beneath and exterior to the Site building will be remediated in accordance with 40 CFR 761.61, and appropriate classification of "Low Occupancy" or "High Occupancy" areas.

PCB clean-up at the Site will be undertaken in three phases, each in accordance with the (United States Environmental Protection Agency's (EPA's) self-implementing procedure under §761.61(a):

Phase I – Building Interior Sludge, Dirt/debris and Oily Materials

The initial phase of PCB mitigation involves clean-up of sludge, dirt/debris and oily materials that have accumulated on floors and walls inside the former mill building. This plan addresses cleanup of sludge, dirt/debris, and oily materials containing PCBs inside the building.

Phase II – Building Interior Porous Surfaces

Following removal of the interior sludge, dirt/debris and oily materials, sampling and testing of porous concrete and wood surfaces will be undertaken to determine additional mitigation requirements. Many of these surfaces are covered with a layer of sludge, dirt/debris or oily materials, thus it is proposed that the sludge, dirt/debris and oily materials are removed and properly disposed prior to sampling of the underlying porous surface. This approach will allow improved visual identification of stained surfaces and permit more representative sampling of the porous material for PCB impacts. A separate plan will be presented that details the supplemental testing and methodology for mitigation of interior porous surfaces.

Phase III - Soils

Preliminary testing has identified PCBs in soils both exterior to and beneath the site building. Due to restricted access, additional sampling and testing of soils will be undertaken following partial demolition of the Site Building. A separate plan will be presented that details the supplemental testing and methodology for mitigation of site soils.

The remediation work proposed in this Plan is being undertaken by Village at Little Falls, LLC in order to initiate Site redevelopment activities which include demolition of the former mill building. To facilitate the remediation of this facility, Ransom and Village at Little Falls, LLC respectfully request that this Plan be reviewed and approved by the EPA by May 28, 2006 (30 days from submittal).

The Maine Department of Environmental Protection (MEDEP) has reviewed and approved a Voluntary Response Action Plan (VRAP) dated June 8, 2005, and has issued a "No Action Assurance Letter" to Village at Little Falls, LLC and Lumas, Inc. (site owner). The VRAP details the Site background, Site investigation findings and the proposed mitigation plan. MEDEP will issue a "Certificate of Closure" following completion of Site mitigation and review of associated documentation.

2.0 BACKGROUND

2.1 Site Description

The Site consists of a former steel mill located on 7 Depot Road in South Windham, Maine (refer to Figure 1). The approximately 6.5 parcel is bordered by Depot Street acre to the North, Maine Central Railroad tracks to the east, the Presumpscot River to the South and Route 202 to the West. The site was reportedly first developed for industrial use in the 1700s, and over the years uses included a saw mill, grist mill, manufactured wood board mill and the steel mill whose remnants presently occupy the site.

The site is presently occupied by a former mill building constructed primarily of concrete and brick. The majority of the building consists of two levels, including a ground floor/basement that is partially below grade. Structures were added to the building over the years, and historic site plans denote the following uses: boiler house, generator room, press building, melt building, storage and manufacturing, and offices. The forge shop and boiler house have been razed.

2.2 Summary of Previous Investigation Activities

The property has been the focus of several environmental investigations since 1995. The investigation reports reviewed by Ransom include the following:

- 1. Phase I Limited Environmental Assessment, Lot 7 of Map 38, Windham Township, South Windham, Cumberland County, Maine, by Consla Geotechnical Engineering, March 18, 1993.
- 2. Environmental Site Assessment, Phase I & II, Former Steel Mill Property, Route 202 and Depot Street, Windham, Maine, by S.W. Cole Engineering, Inc., November 17, 1997.
- 3. Report on Supplemental Site Investigation, 7 Depot Street, Windham, Maine by Jacques Whitford Company, Inc., March 9, 2004.

The Phase I Limited Environmental Assessment by Consla Geotechnical Engineering identified potential sources of environmental impacts but included no subsurface investigation or chemical testing of soils, sludge or other materials at the Site. The assessment identified numerous tanks, chemical storage containers and operations areas that had the potential to impact the site environment.

Subsurface investigations by S. W. Cole in 1995 and 1996 included completion of twenty-four test pits targeting former storage tanks and other areas of potential concern. Soil samples were screened for volatile organic compounds (VOCs) with a photoionization detector (PID) and six soil samples were tested in a laboratory either for fuel oil, pesticides, PCBs, or heavy metals.

S. W. Cole identified heavy oil-impacted soil at the northern end of the site near Depot Street. The impacted soil was located in the vicinity of a two former above-ground heavy oil storage tanks (now removed). S. W. Cole removed approximately 11 tons of soil impacted by the heavy oil under the oversight of the MEDEP. S. W. Cole identified no significant impacts from pesticides, PCBs or heavy metals during their Site investigation.

In August, 2003, Jacques Whitford completed supplemental investigations including twelve test pits, six hand augers and twenty-three surface soil samples at the 7 Depot Street site to evaluate areas of potential concern identified during previous site investigations. These areas included:

- Two former above ground fuel storage tanks (15,000 and 10,000 gallon capacity) near the railroad tracks on the east side of the site where oil-stained soils were observed during a previous site investigation;
- Two 1,000 gallon underground wastewater tanks adjacent to the north wall of the facility;
- Former 3,000 gallon above-ground fuel tank located at the end of a rail spur on the east side of the site:
- Transformer pad/electrical substation on the south side of the site;
- Former drum storage area at the south end of the former mill building;
- Former garage at the south end of the site; and
- A sump and area of broken concrete in the basement of the former Melt Building.

Selected soil samples were tested for VOCs (EPA Method 8260-B), diesel-range organics (DRO), the eight RCRA metals, and PCBs. Sampling by Jacques Whitford also included testing of sludge and drt/debris from floor surfaces inside the mill building for PCBs. The interior PCB sample locations Sampled by Jacques Whitford are shown on Figures 2 and 3, and included:

Sample ID	Location/Rationale	
SS5	Material from area of broken concrete in Melt Building Basement	
SS6	Material from floor sump in Melt Building Basement	
SS7	Sludge on concrete floor in maintenance shop, first floor	
SS8/SS9	Sludge on concrete floor in maintenance shop, first floor	
SS10	Sludge on concrete floor near former transformer, first floor	
SS101A/B	Material from floor sump in Melt Building Basement	
SS102	Dirt/debris pile on concrete floor in Melt Building Basement	
SS103	Dirt/debris pile on concrete floor in Melt Building Basement	
SS104	Dirt/debris pile on concrete floor in Melt Building Basement	

Jacques Whitford collected sample SS5 from an area of broken concrete in the basement of the former Melt Building. Samples SS6 and SS101 were collected from a floor sump along the south wall in the Melt Building. The sump was about 1.5 ft x 1.5 ft square and contained water at a depth of about 2 ft below the floor level. Hand excavation along the building wall did not identify a discharge pipe from the drain. Jacques Whitford indicated that the drain may have an open bottom or sides under the building floor, with no point discharge.

Samples SS7, SS8/SS9 (co-located samples), SS10, SS102, SS103, and SS104 were composed of sludge that had accumulated on the building's concrete floor. Sample locations were selected based on proximity to oil stains, maintenance activities and former electrical equipment, such as transformers.

Total PCBs concentrations of 174 ppm (Aroclor 1254 and Aroclor 1260) were detected in material collected from the floor sump located along the south wall of the building basement/ground floor (SS6). Confirmatory sampling from this location indicated 262 ppm PCBs (SS101A) and 570 ppm PCBs (SS101B – split sample). The area of broken concrete (SS5) contained 77 mg/kg total PCBs.

Material sampled from the surface of the concrete floor inside the building contained total PCBs ranging from 11 ppm in the maintenance shop (SS8) to 138 ppm on the ground floor of the Melt Building (SS103). The PCBs detected included Aroclor 1254 and 1260.

2.3 Surrounding Receptors

Public water is available to the site area. However, Portland Water District records for South Windham indicate that a number of residences generally east of the site have private water supply wells. The closest wells to the site include the Boulanger, Georgatos and Reed residences, located about 500 to 1,000 feet to the northeast. Site topography indicates these residences are located at an elevation 20 to 40 feet higher than the site and are likely upgradient with respect to groundwater flow.

The Presumpscot River borders the site to the west, and properties to the north, east and south consist of a mix of commercial, industrial and residential properties. The closest residence to the site is an abutting apartment building about 300 feet east of the mill building. Ransom has identified no schools, playgrounds or day care facilities within 500 feet of the Site.

3.0 SITE CHARACTERIZATION BY RANSOM

Based on the results of the prior Site investigations, Ransom conducted additional characterization of materials inside the mill building for PCBs. The sampling program included the following:

- 1. Collection of surface wipe samples to assess possible tracking of PCBs into a first floor hallway and office/storage areas at the south end of the mill building.
- 2. Collection of bulk samples of solid material from the top of concrete floors in the basement and first floor of the Melt Building, the first floor Storage and Manufacturing area, the Press Building (ground floor) and press pit (ground floor);
- 3. Collection of bulk samples of oily material from the concrete floor and walls in the basement and first floor of the Melt Building, and from the first floor of the Storage and Manufacturing building;
- 4. Collection of sub-slab material where concrete had been broken in the vicinity of two transformers (in storage) on the first floor of the mill building; and
- 5. Collection of wood chips from oil-stained wood in the vicinity of electrical equipment in the basement (Generator Room) and first floor of the Melt Building.

The samples collected during Ransom's investigation were analyzed by Pace Analytical, Inc. (Pace) of Pittsburgh, PA for PCBs by U.S. EPA Method 8082. Bulk samples were extracted using US EPA Method 3540 (Soxhlet Extraction) and the wipe samples were extracted using a modified Method 3550 (sonication). The sample results are summarized on Table 1; laboratory data sheets including QA/QC reports are provided in Appendix B.

3.1 Surface Wipe Samples

Ransom collected three surface wipe samples (IW-01 through IW-03) from concrete floors in a first floor hallway and in the office/laboratory space (second floor) at the south end of the mill building on October 27, 2005. Each sample was collected in accordance with the standard wipe test as defined by §761.123. Wipe sampling locations are depicted on Figures 3 and 4.

PCBs were not detected in wipe samples IW-02 (2^{nd} floor office area) and IW-03 (1^{st} floor hall). Aroclor 1254 and Aroclor 1260 were detected at a total concentration of 44 μ g/100 cm² in IW-01 (2^{nd} floor stockroom).

3.2 Bulk Solids on Walls and Floors

Ransom collected ten samples of bulk solids from the top of concrete floors in the former mill building on October 27 and November 2, 2005 (refer to Figures 2 and 3). The samples included:

- Melt Building basement (IS-09 and duplicate IS-13)
- First floor of the Melt Building (IS-10, IS-11 and IS-14)
- Ground floor of the Storage and Manufacturing area (IS-06)
- First floor of the Storage and Manufacturing area (IS-01 and IS-02)
- Press Building (IS-07 and IS-08).

Total PCBs were detected at concentrations ranging from non-detect in the Press Building (IS-08) to 320 mg/kg on the first floor of the Storage and Manufacturing area (IS-02). Four of the ten samples contained total PCBs with concentrations greater than 50 mg/kg. The PCBs detected were Aroclor 1248, 1254 and 1260.

3.3 Oily Material

Ransom collected six samples of oily material associated with fuel distribution piping in the Melt Building. The piping includes fuel supply and return lines extending from the south end of the Melt Building basement to the Storage and Manufacturing area at the north end of the mill building. The oil samples appeared to consist of a heavy heating oil (No. 6/Bunker C) and included:

- Oil on the wall of the Melt Building basement, near fuel piping (IS-03)
- Oil on the concrete floor beneath a fuel pipe cutoff ((IS-04)
- Oil on the wall of a former furnace in the basement of the Melt Building (IS-15)
- Oil that had leaked from a fuel pipe fitting on the first floor of the Melt Building (IS-16)
- Oil that had leaked from a fuel piping elbow on the first floor of the Melt Building (IS-17)
- Oil that had leaked from a fitting in an apparent fuel pump on the first floor of the Storage and Manufacturing area (IS-18).

Samples IS-03 and IS-04 were collected on October 27, 2005. Samples IS-15 through IS-18 were collected on January 2, 2006. The sample the locations are shown on Figures 2 and 3.

Total PCBs in the oily materials were detected at concentrations ranging from non-detect in IS-18 to 240 mg/kg in IS-15. Two of the six samples of oil materials contained PCBs at concentrations greater than 50 mg/kg. PCB constituents included Aroclor 1242, Aroclor 1248 and Aroclor 1254.

3.4 Sub-Slab Sample

Ransom collected one bulk sub-slab sample (IS-05) of fill from an area of broken concrete flooring in the Storage and Manufacturing area on October 27, 2005. The sample location is shown on Figure 2.

The soil sample contained total PCBs at a concentration of 97 mg/kg. The constituents were Aroclor 1254 (66 mg/kg) and Aroclor 1260 (31 mg/kg).

3.5 Bulk Wood Samples

Ransom collected two samples of oil-stained wood in transformer areas, one from a platform in the former Generator Room (IWD-02), and one from a platform on the first floor of the Melt Building (IWD-01). Sample locations are shown on Figures 2 and 3.

The two wood chip samples contained total PCBs of 36.9 mg/kg (IWD-01) and 105 mg/kg (IWD-02). Aroclor 1242, 1254 and 1260 were identified.

3.6 Data Usability/Validation

To assess the usability/validity of the laboratory data obtained during the investigation work described above, Ransom conducted a limited data validation assessment. This assessment included an evaluation of the following parameters as provided in the laboratory reports:

- 1. Sample integrity;
- 2. Laboratory information;
- 3. Chain of custody;
- 4. Laboratory report details; and
- 5. Quality Assurance/Quality Control.

During the validation process, Ransom reviewed the laboratory analytical reports and completed a Laboratory Report Checklist documenting the performance of the validation. Ransom did not identify laboratory quality-control issues that may have had an adverse impact on the usability of the data.

3.7 Determination of PCB Remediation Waste

The concentration of PCBs in bulk materials sampled inside the mill building to date range from non-detect to 570 mg/kg. Fifteen of the thirty samples collected exhibited total PCB concentrations greater than 50 mg/kg. The source of PCBs at the site is likely a combination of spills and leaks of PCB-MODF from transformers and other electrical equipment, PCB-containing lubricating/hydraulic oils and PCB-contaminated fuel oil. Given uncertainty of the source, date of use and original concentration of PCBs in equipment in the mill building, sludge, dirt/debris and oily material on the floors and walls of the mill building will be presumed to be "PCB Remediation Wastes."

3.8 Quantity of PCB Remediation Waste

The quantity of PCB remediation waste has been estimated based on visual assessment of approximate material thickness and square footage of areas covered with sludge, dirt/debris and oily material. The table below summarizes the estimates.

Location	Estimated Impacted Area (sq. ft.)	Estimated Thickness (in)	Estimated Volume (cubic yards)
Maintenance Shop Area	4,200	0.5	6.5
Melt Building- ground	10,000	0.5	15
Melt Building – 1st	10,000	0.5	15
Storage & Manufacturing – ground	6,000	0.25	4.7
Storage & Manufacturing – 1st	6,000	0.25	4.7
Generator Room	400	0.25	0.3
Fuel piping in Melt Building and Storage/Manufacturing Area	Not Applicable	Not Applicable	10
Estimated Total (cubic yards)			56.2

Specific PCB-contaminated locations are not delineated on the site plans due to the virtual ubiquitous presence of these materials within the mill building. As a result, sludge, dirt/debris and oily materials on floors, walls and in fuel piping will be presumed contaminated with PCBs (>1 ppm) and will be removed for proper disposal at a PCB disposal facility.

4.0 CLEANUP PLAN

4.1 Objective

The objective of the cleanup activities conducted under this Plan is to remove sludge, dirt/debris and oily material from the concrete flooring and walls of the former mill building, and to remove piping that contains heavy fuel oil contaminated with PCBs. Following removal of this material, additional characterization of underlying concrete and soils will be conducted, and self-implementation plans will be submitted to EPA for subsequent mitigation. The mill building is proposed to be demolished for site redevelopment.

4.2 Cleanup Goal

It is assumed that sludge, dirt/debris, oily material and associated fuel piping contain PCB concentrations greater than 1 mg/kg. Accordingly, this material will be collected and properly disposed as PCB Remediation Waste.

4.3 Public Notification

Ransom will notify the U.S. EPA, MEDEP, and the Windham Town Manager regarding the performance of the work prior to implementation of the Plan.

4.4 Necessary Permits

Ransom has submitted a Voluntary Response Action Plan to MEDEP and has received approval for site mitigation. Ransom has identified no other permit requirements.

4.5 Sludge, dirt/debris and Oily Material Removal

Ransom will be on-site to oversee contractor removal of sludge, dirt/debris, oily material and associated piping from the mill building. Depending on the consistency of the material, PCB waste will be recovered using either a vacuum equipped with a HEPA-filter, or by shoveling into storage containers (e.g., hardened sludge and oily materials). Dust suppression, such as application of a spay mist, will be implemented on an as-needed basis.

For oil-stained concrete surfaces, the contractor may apply a petroleum-based agent (e.g., #2 fuel oil) to assist in removing residual PCB contamination. Applied liquids and residuals will be contained with plastic sheeting and absorbent pads.

Collected materials will be stored in labeled 55-gallon drums or roll-off containers. The containers will be kept closed except during transfer of waste to the containers. Used HEPA filters and contamment materials (*i.e.*, plastic sheeting, tape, lumber) will be managed as PCB Remediation Waste. Following appropriate waste characterization activities, the PCB Remediation Waste is scheduled to be disposed at The Wayne Disposal in Belleville, Michigan.

4.6 Confirmatory Sampling and Cleanup Verification

Following the removal of the PCB-contaminated sludge, dirt/debris, oily materials and associated piping from the mill building, Ransom will conduct sampling of the underlying concrete to assess the

potential for residual PCBs. Samples will be collected in visibly stained areas and other locations where PCBs were identified during bulk sample characterization. Sampling will be conducted in accordance with EPA's "draft Standard Operating Procedure for Sampling Concrete in the Field," dated December 1, 1997. Sampling frequency will be assigned based on §761.265, "Sampling Bulk PCB Remediation Waste and Porous Surfaces." If PCBs are identified at concentrations greater than 1 mg/kg, a plan for mitigation of the concrete will be prepared and submitted to EPA.

4.7 Contingencies

The proposed PCB mitigation plan is inherently conservative in that sludge, dirt/debris and oily materials encountered within the mill building is assumed to be PCB Remediation Waste with total PCB concentrations >50 ppm . The greatest uncertainty is the volume of the material that will be collected, stored and disposed off site. Our client and the contractor are prepared to collect and properly dispose of additional PCB Remediation Waste if actual volumes exceed the estimates detailed herein.

5.0 PROPOSED IMPLEMENTATION SCHEDULE

Ransom proposes the following implementation schedule for the Plan:

Activity	Completion Date	
Submittal of Plan	April 28, 2006	
US. EPA Approval (expected)	May 28, 2006	
Interior Building Material Removal	June-July 2006	



Northeast Civil Solutions

INCORPORATED

June 21, 2007

RE: Village at Little Falls Archaeological Investigation Report

151 U.S. Route, 1

Scarborough

Mune 04074

Dr. Arthur Spiess Maine Historic Preservation Commission 55 Capitol Street

65 State House Station Augusta, Maine 04333

tel

207 883 1000

Dear Dr. Spiess,

800 882,2227

fax

207.883 1001

Enclosed, please a copy of the Phase II Archaeological Survey Report for the proposed Village at Little Falls residential development in Windham, Maine. Dr. Stuart Eldridge of NEA conducted the investigation. The investigation was competed at the request of the Maine Historic Preservation Commission. The survey resulted in no indications of intact prehistoric or historic artifacts, therefore no further archaeological investigation is recommended. Please feel free to give me a call at 207-883-1000 if you have any questions or comments. Thank you.

Sincerely,

Northeast Civil Solutions, Inc.

Denise Cameron, P.E.

Project Engineer

CC: Steve Etzel, HRC-Village at Little Falls, LLC Stuart Eldridge, Phd, RPA - NEA Mary Beth Richardson, Maine DEP



Northeast Civil Solutions

INCORPORATED

June 21, 2007

153 U.S. Route (

Scarborough

Maine 04074

Ms. Mary Beth Richardson Maine Department of Environmental Protection 312 Canco Road Portland, Maine 04103

207 883 1000

800.882.2227

fax

207.883.1001

RE: Village at Little Falls Archaeological Investigation Report

Dear Mary Beth,

Enclosed, please a copy of the Phase II Archaeological Survey Report for the proposed Village at Little Falls residential development in Windham, Maine. The archaeological investigation was completed at the request of the Maine Historic Preservation Commission. The survey resulted in no indications of intact prehistoric or historic artifacts. A copy of this report has been forwarded to Dr. Arthur Spiess of the Maine Historic Preservation Commission for review.

Please feel free to give me a call at 207-883-1000 if you have any questions. Thank you.

Sincerely,

Northeast Civil Solutions, Inc.

Denise Cameron, P.E.

Project Engineer

PHASE II PREHISTORIC ARCHAEOLOGICAL SURVEY REPORT SITE ME 8.20 VILLAGE AT LITTLE FALLS PROJECT TOWN OF SOUTH WINDHAM CUMBERLAND COUNTY, MAINE

MHPC NO. 3091-05

Prepared for:

Northeast Civil Solutions, Inc. 153 U.S. Route 1 Scarborough, Maine 04074

Prepared by:

Stuart A. Eldridge, Ph.D. Principal Investigator

Northern Ecological Associates, Inc. Archaeological Services Group 451 Presumpscot Street Portland, Maine 04103

June 2007



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1.0 INTRODUCTION

A Phase II archaeological investigation of the Village at Little Falls Project (Project) located in South Windham, Maine was undertaken by Northern Ecological Associates, Inc. (NEA) Archaeological Services Group, Portland, Maine in May and June of 2007. This survey was conducted on behalf of Northeast Civil Solutions, Inc., of Scarborough, Maine in accordance with cultural resource management practices as required on the Federal and state level. Specifically, the cultural resource investigation was conducted in accordance with the National Historic Preservation Act of 1966, as amended, Title 38 M.R.S.A., Article 6 Site Location of Development, and the Maine State Historic Preservation Officer's Standards and Guidelines (Title 27 M.R.S.A. s.509).

Fieldwork was completed under the direction of the Principal Investigator, Dr. Stuart Eldridge, Certified Level II Archaeologist in Maine. Ms. Sarah Haugh, a Level I Certified Archaeologist in Maine, assisted Dr. Eldridge as Crew Chief, along with Harlan Locking and Janelle Lavallee serving as Level I Field Technicians.

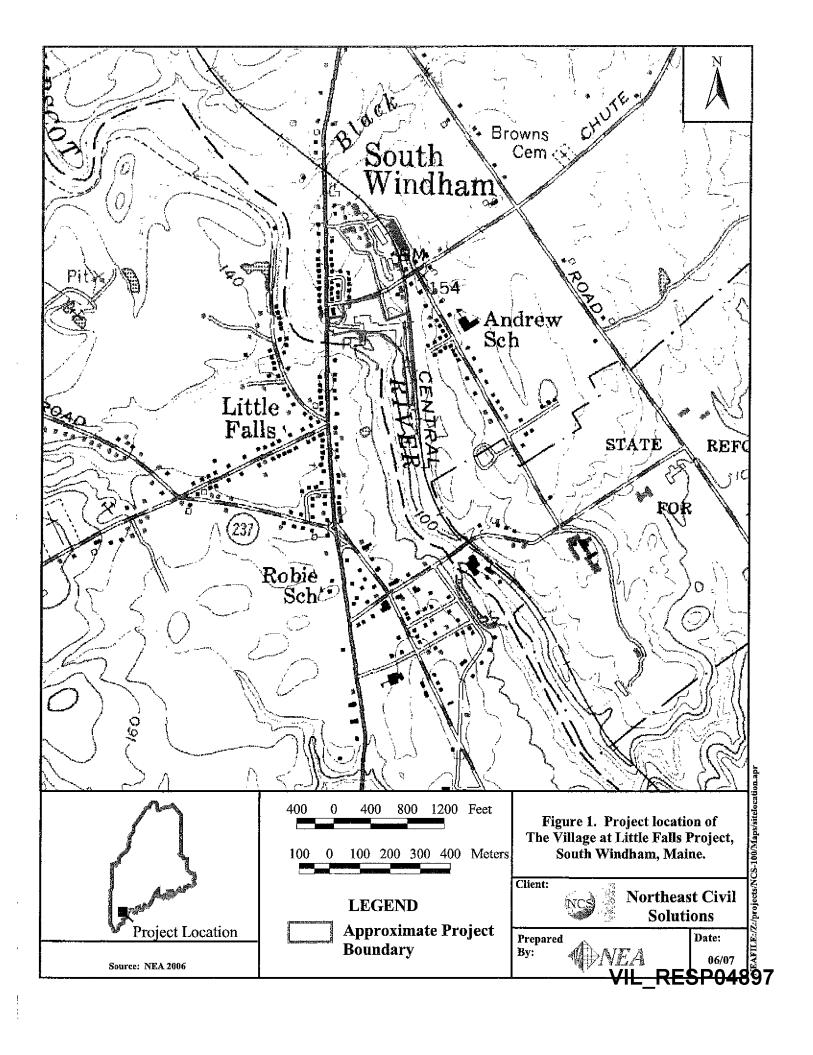
The purpose of this survey was to attempt to establish accurate site boundaries of a prehistoric archaeological site location (Site ME 8.20) adjacent to the Project and established as potentially eligible for inclusion on the National Register of Historic Places (NRHP) as a result of earlier Phase I and II archaeological location and impact studies conducted near the Project area by Deborah Wilson (Wilson and Bourque 2000). This report summarizes the background research, describes the environment and cultural history of the Project area, presents the field methods employed in the survey, and describes the results of the Phase II archaeological investigation for the Project.

1.1 Project Description

HRC-Village at Little Falls, LLC, of Portland, Maine, is presently constructing a condominium complex in the Town of South Windham, Maine. The Project is located adjacent to the Little Falls Hydroelectric Project (FERC 2941) power plant, and bounded on the west by the Presumpscot River and on the east by the former Maine Central railroad grade (see Figure 1 and see Appendix C: Oversize Site Plan). Prehistoric Site ME 8.20 is located near this Project.

1.2 Environmental Setting

Phase II archaeological testing focused on establishing the general location of Site 8.20 indicated by artifact finds established as a result of the earlier Phase I archaeological locational survey (Wilson and Bourque 2000 [see Appendix D: Phase II Site Map]). Site 8.20 appears to be a fairly extensive prehistoric habitation site located on a series of level terraces that overlook the shoreline of the Presumpscot River. The terraces and prehistoric site location are bounded on the north by steeply sloping, rocky terrain and on the southern edge by extensive, lower elevation wetlands. Elevation within the Project ranges from approximately 80 feet above mean sea level (AMSL) on the river shoreline to approximately 120 feet AMSL.



According to the United States Department of Agriculture (USDA 1974), soils in the vicinity of Site ME 8.20 are dominated by shallow, excessively drained, Hollis series fine sandy loams on 8% to 25% slopes in the northern portions of the site location, followed by Buxton series, moderately to poorly drained silt loams on 3% to 8% slopes in the southern portions of ME 8.20. Cut and Fill Land characterizes the soil type in the vicinity of the power station. Surficial geology at ME 8.20 is characterized by glacial till deposits and glacio-marine deposits of clayey silt (Presumpscot Formation).

Maine's record of human land use dates back more than 10,000 years. Archaeological evidence from Maine suggests that populations moved into the area soon after the retreat of the glacier and the reversal of the marine transgression, a period of dramatic environmental change. The pollen record shows a progression of dominant species that began to replace the glacial environment between ca. 12,000 BP to ca. 10,000 BP. In the broadest terms, changes in biotic communities occurred as herb pollen, representing open, tundra-like conditions, that gave way to spruce (parkland), then to pine (coniferous forest), and recently to a combination of hemlock, birch, and beech in northwestern Maine and pine and oak in southwestern Maine (deciduous forest) (Eldridge et al. 1997).

The Site ME 8.20 locale is presently undergoing various localized stages of woodland succession. The forested areas consist primarily of maple, ash, and pine. This forest cover falls within the Transition Hardwoods category vegetation zone for southwestern Maine, featuring oaks, white pine, birch, poplar, and red pine on sandy terraces (Westveld et al. 1956). This locality falls within the Central and Southwestern Interior Climatic area of Maine, a zone marked by warmer temperatures and less snowfall than other regions of the state.

1.3 Prehistoric Context

Archaeologists have divided the prehistoric cultural history of the state into three major periods that are further divided into cultural units that share similarities in artifact form and cultural adaptations across large portions of the region (see Table 1, adapted from MacPherson et al. 1997). The cultural units are also defined as "study units" in the *State Plan for Prehistoric Archaeology* (Spiess 1989, 1991a, 1991b, 1991c, 1992a, 1992b; Wilson and Spiess 1990). The following section briefly presents a broad summary of each of the major prehistoric cultural periods: Paleoindian, Archaic, and Ceramic.

Table 1. Maine Cultural Chronology Study Units.

Cultural Periods	Time Period (Before Present)	Study Unit
Paleoindian	11,500 to 10,200	Fluted Point Paleoindian Tradition
	10,200 to 9500	Late Paleoindian Tradition
Archaic	9500 to 6000	Early and Middle Archaic Traditions
	6000 to 2000	Late Archaic-Small-Stemmed Point
	4500 to 3700	Late Archaic-Moorehead Phase
	3900 to 2800	Late Archaic-Susquehanna Tradition
Ceramic (Woodland)	2800 to 500	Ceramic Period
Historic	less than 500	Contact Period and Modern History

Paleoindian Period. Maine's earliest inhabitants are archaeologically referred to as Paleoindians. As animal and plant communities became established during the early post-glacial period, human populations were able to enter northern New England and formulate adaptive strategies marked by what may be a major and unique sequence of human expansion during the late Pleistocene (Wilson and Spiess 1990). The Fluted Point and Late Paleoindian phases have been identified based on the presence of diagnostic projectile points and tool types in assemblages recovered from significant sites in the region. Paleoindian tool kits are characteristically manufactured from high-quality lithic materials often derived from quarry sources great distances from habitation sites (Spiess and Wilson 1987, Eldridge 2002). Researchers suggest long-distance movement of Paleoindian groups and extensive trade networks as mechanisms that account for the presence of tools made from distant raw materials (Eldridge et al. 1997). Classic stone tool forms include the bifacially flaked projectile points with fluted bases and steep-edged endscrapers.

There is little direct evidence for subsistence practices in Maine during this period, but a model of broad exploitation of a variety of animal and plant remains has replaced the customary view of Paleoindian as specialized big-game hunters (Wilson et al. 1995). Researchers in Maine have refined perceptions of early, middle, and late Holocene paleoenvironments, suggesting diverse regional settings that would have provided a wide range of resources to Native American populations during any period (Petersen and Putman 1992). Although additional research may revise present views of the range of Paleoindian site types in Maine, there appears to be a range of site size and functions: large sites or base camps representing large aggregations of people for longer periods of time and perhaps supported by a resource base and socio-cultural structures capable of sustaining such large groups; small sites that are representative of populations that may be dispersed due to a number of possible reasons, ranging from resource scarcity or task group decisions, to social or political bases for increased mobility and small population units ranging the landscape (Wilson and Spiess 1990). Sites with extremely low artifact density (ephemeral sites and isolated find spots) round out the range of Paleoindian site types found in Maine, and although these site types do not present researchers with complex artifact assemblages or features, may indicate Paleoindian patterns of movement and regional activity.

Archaic Periods. Recent research has demonstrated that Early and Middle Archaic Period components do exist in a range of regional settings of the Northeast and that they exhibit distinctive lithic technologies (MacPherson et al. 1997; Cross 2000; Dunford 2000). The inferred settlement and subsistence pattern for the Early Archaic suggests that small groups of hunter-gatherers continued to live in Maine and possessed a much more diversified economy than their predecessors. Tool assemblages consisting of groundstone tools are fairly diagnostic and particular to Maine. Middle Archaic Period sites have been identified on the coast as well as in the interior of Maine. The first cemetery sites identified in Maine are dated to this time period.

The Late Archaic Period is divided into several traditions and phases and is well documented in Maine. It is during this period, from 6000 years ago to 2800 years ago, that the environment experienced many changes in forest composition affecting the types of plant and animal resources available for subsistence practices. Habitation sites are recorded from a variety of locations, including coastal shell middens, lake margins, and large and small waterways.

Numerous cemetery sites are known from this period (Moorehead 1922) and there is considerable evidence for marine resource exploitation (Spiess and Lewis 2001).

At the close of the Late Archaic Period the archaeological assemblage suggests a different lifestyle than that practiced during earlier traditions. Deceased individuals were cremated rather than interred, diagnostic tool forms include large, broad spearpoints rather than groundstone tools, and subsistence appears to have been more focused on inland or terrestrial resources rather than marine resources (Spiess and Lewis 2001).

Ceramic Period. The introduction of pottery making into Maine's Native American culture signifies the beginning of what archaeologists in Maine call the Ceramic Period. Ceramics first appear in the archaeological record of Maine about 2800 years ago and persist until after contact with the Europeans. Ceramic Period sites depict cultural adaptations to the diversified use of local resources. While ceramics were adopted and there is archaeological evidence for limited corn-bean-squash horticulture in extreme southwestern Maine, a hunter-gatherer lifestyle persisted. Ceramic Period sites are abundant, the highest frequency have been identified in shell middens found along the coast in estuary and island environments, and are also common in interior sections along waterways, ponds, and lakes (MacPherson et al. 1997).

Contact Period. The Contact Period was a period of tremendous and rapid change for Maine's Native Americans. Ethnohistoric accounts of Abenaki groups in Maine suggest fairly substantial late pre-contact indigenous population numbers and loose political confederations centered on prestigious or charismatic individuals (Snow 1980). Subsequent additions of European materials to Native material culture were followed by expansions and strains in pre-existing intertribal trade networks, warfare, and social structure. One of the most profound and lasting results of early visits by Europeans to the coast was European-introduced disease.

The Early Contact Period has been considered to start arbitrarily at 1500 A.D., with European voyages to Newfoundland and the Gulf of St. Lawrence. The period arbitrarily ends at 1676 corresponding with the outbreak of King Phillip's War, the abandonment of trading posts and towns, and intensified movement by Native American refugee groups and other drastic changes in Native American ethnic groupings and lifestyles. The long prehistoric occupation of Maine had come to an end with the arrival of the European traders, fishermen, and settlers.

1.4 Previous Archaeological Research

Phase I and Phase II archaeological surveys have been conducted near the Project, establishing the presence of a prehistoric archaeological site dating to the Early Ceramic Period and possibly the Middle Archaic Period. These previous archaeological surveys along the shoreline and terraces on the eastern bank of the Presumpscot River, immediately downstream from the power station complex, produced extensive evidence of prehistoric usage at ME Site No. 8.20. This prehistoric site was recommended for eligibility for inclusion on the NRHP (Wilson and Bourque 2000).

1.5 Historic Structures

Site file search at the Maine Historic Preservation Commission (MHPC) determined that there are no recorded State or National above ground historic structures or historic period sites in the APE that are eligible for nomination or are listed in the State or NRHP.

2.0 METHODS AND RESULTS

2.1 Archaeological Methodology

The primary goals of a Phase II Archaeological Investigation are to obtain detailed information on an archaeological site's integrity, limits, structure, function, cultural/historical context, and potential to yield information important to the understanding of the surrounding area's history and prehistory. The information secured must be sufficient to enable the review agency to evaluate the site's potential State and NRHP eligibility.

A Phase II proposal and scope of work (SOW) was submitted and approved by the State Historic Preservation Officer (SHPO). The SOW included recommendations for Phase II background research and file search, pedestrian survey of Site ME 8.20, and plotting of up to 30 shovel test pits (STPs) (50cm x 50cm) and two 1 x1 meter test units (TUs) to establish prehistoric site boundaries for Site ME 8.20 and possibly secure data on site content, structure, and chronology.

Completion of the Phase II prehistoric archaeological investigation involved: (1) background research to provide information on the types of data expected from the site as derived from previous work and on known sites in the locale and region, and information on local, regional, and national contexts within which to evaluate the importance of the site and to identify research questions that can be addressed; (2) sufficient excavation of STPs in archaeologically sensitive areas in order to provide an accurate estimation of site boundaries and enable identification of amount, degree, and type of artifact clustering that may be present; (3) test unit excavation, if warranted, in an area most likely to yield data pertinent to Phase II goals and objectives; (4) data analysis consisting of cleaning, inventorying, labeling, and identifying any artifacts found; and (5) preparing a Phase II Archaeological Investigation final report following MHPC Contract Archaeology Guidelines and SHPO Standards for Archaeological Work in Maine for submittal to the MHPC. This final report must provide sufficient information to allow the review agency to make a determination of site eligibility to the State or National Register, assess expected impacts to the site from the proposed construction, and offer recommendations to mitigate adverse impacts either through avoidance, redesign, data recovery (Phase III), recordation, or a combination of these strategies.

2.2 Field Investigations and Results

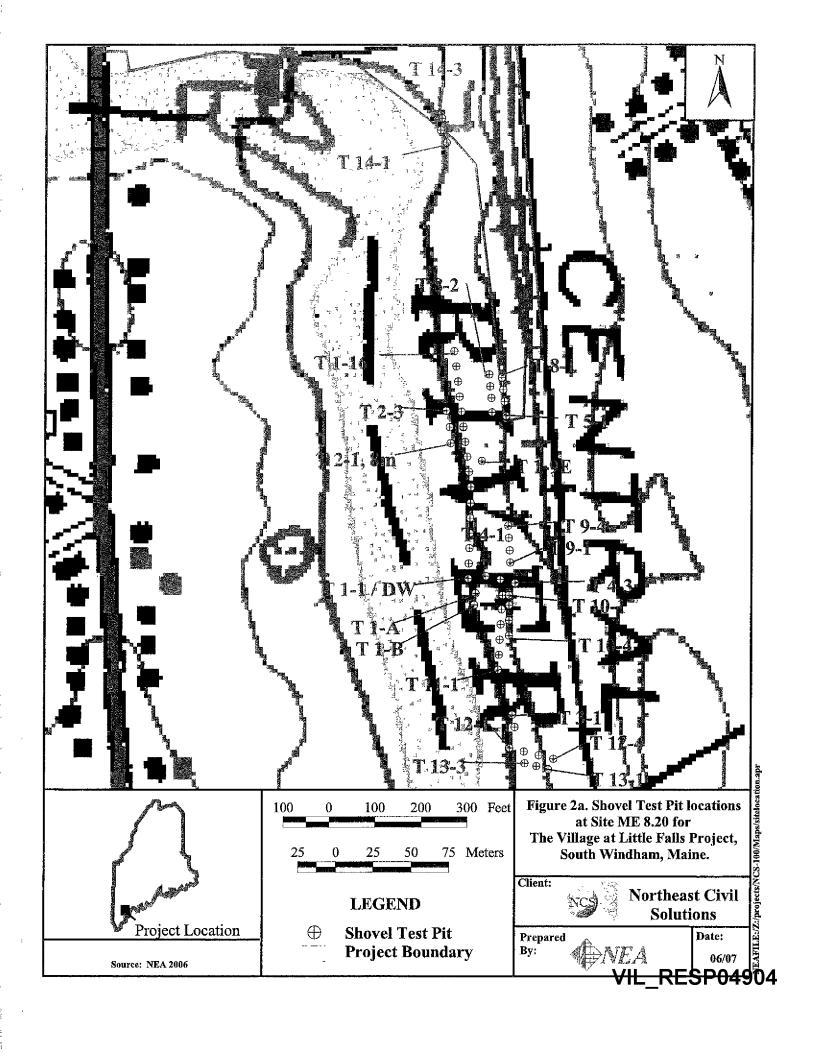
The NEA Phase II assessment was based on site characteristics (proximity to water, soil characteristics, and landform) and on recommendations from Dr. Arthur E. Spiess of the MHPC.

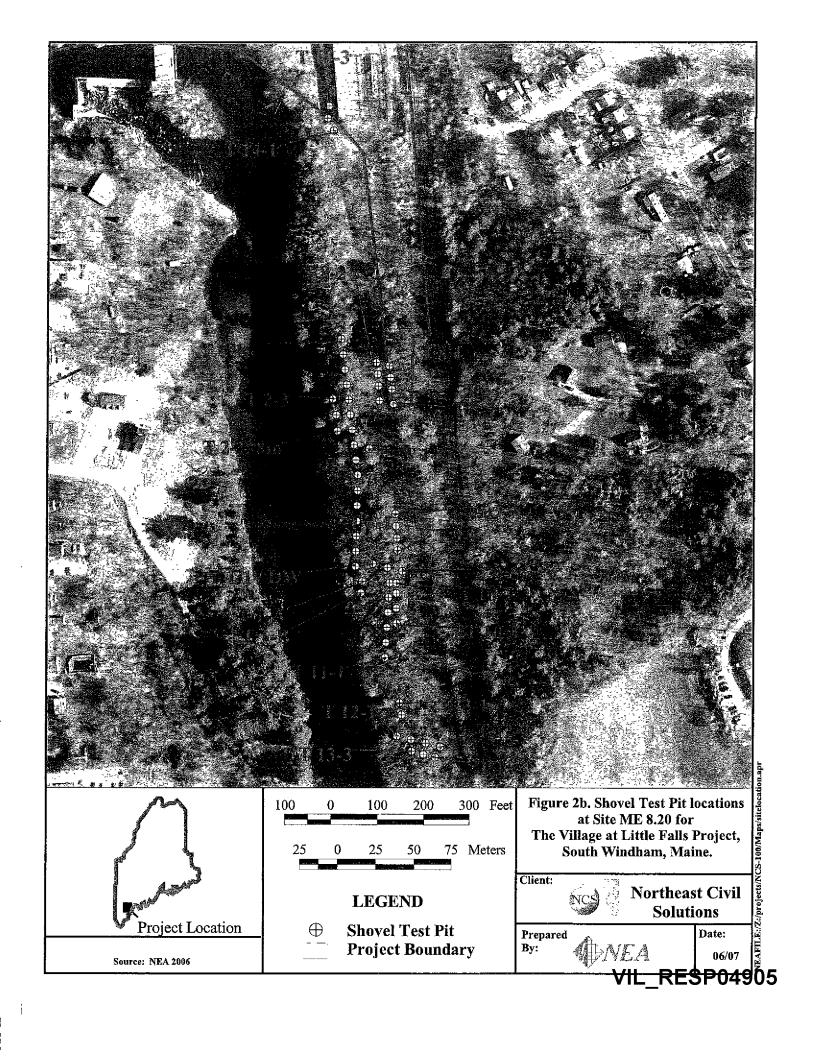
On May 24, 2007, Dr. Stuart Eldridge and Sarah Haugh of NEA conducted a pedestrian survey of the Project area in the vicinity of Site ME 8.20 in South Windham, Maine. Initially, the pedestrian survey was begun at the Site ME 8.20 location as demarcated by UTM coordinates supplied by the previous Phase I and II archaeological surveys at the site (Wilson and Bourque 2000), i.e., approximately 125 meters south of the power station complex on the east bank of the Presumpscot River. This location on the ground exhibits severe surface modification due to activities directly associated with extensive amateur excavations in what appear on close examination to be late 19th and early 20th century refuse deposits (see Appendix A: Photographs 29-31). No evidence exists at this location at this time for the presence of prehistoric cultural

material, features, or artifacts, nor does the terrain in this location resemble that described by Wilson as the immediate environs of Site ME 8.20 (Wilson and Bourque 2000). On the contrary, the terrain is irregular (due in part to continual historic period modification and amateur excavations), rocky, and falls steeply to the Presumpscot River from a height of approximately 10 to 12 meters above the river from immediately south of the powerhouse complex to a point almost 200 meters south of the complex on the east bank of the river. It is at that point, approximately 200 meters south of the powerhouse complex, that the terrain appears to take on characteristics resembling features described and mapped by Wilson, e.g., the stream channel bordering the hypothesized northern extent of Site ME 8.20 (termed in this NEA Phase II Report the "northern stream channel") and more gently sloping or level terrain characterized by a series of smaller terraces and benches, before reaching a shallow swale (termed in this NEA Phase II Report the "southern swale") in the vicinity of the southern extent of the site according to Wilson (see Appendix D: Phase II Site Map [Wilson and Bourque 2000: Figure 44]).

STPs were plotted at maximum ten-meter intervals, were approximately 50 x 50 cm in dimension, and the sod/root mat from each test excavation was removed in squares and set aside for replacement when the test pit was completed and backfilled. The soil was removed and screened through ¼ inch wirecloth mesh by natural soil levels where such levels were visible and by 10 cm increments where visible stratigraphy escaped the eye. Excavators were alert to the possibility of features such as hearths, postholes, or foundations, etc. The excavations continued in depth until a sterile stratum was reached (for example, Presumpscot Formation clays or glacial till) or a natural obstacle presented itself. A profile depicting soil stratigraphy for each test pit excavated was drawn prior to backfilling and re-sodding. Any cultural material secured during the excavations was provenienced by test unit and stratigraphic level and placed in plastic bags for processing and curation.

At a point on the first terrace two to three meters above the Presumpscot River, approximately 75 meters south of the northern stream channel, the NEA pedestrian survey located what appeared to be the only unequivocal evidence of a previously excavated 50 x 50 cm STP, presumably an action of the 1999 Phase II archaeological survey (Wilson and Bourque 2000) (see Figure 2a and 2b: STP T 1-1/DW and Appendix A: Photographs 7-9). Using this STP position as a start point, NEA proceeded to establish a baseline (T-1), marked by STP locations at 10 meter intervals and extending northwards along the terrace, eventually intersecting the northern stream channel and terminating at a point approximately 160 meters north of STP T 1-1/DW on the high bluff overlooking the river, well within the zone of amateur excavations in the historic refuse (see Figure 2a and 2b). STP T 1-9, located on the south bank of the northern stream channel, appears to be approximately two meters east of a possible STP location from the earlier survey (see Appendix A: Photographs 5 and 6). At this juncture, NEA also plotted the position of Transect 2 (T-2), containing three STPs on the northern bank of the northern stream channel and the position of Transect 3 (T-3) near the southern margin of the southern swale. T-2 and T-3 were each established in areas that appeared to test positively for prehistoric materials during the earlier survey (Wilson and Bourque 2000), regardless of the fact that earlier STP or Test Unit locations were impossible to relocate (see Appendix A: Photographs 1-4; 12 and 13). Transect 4 (T-4), containing three STPs, was also plotted eastward of STP T 1-1/DW, traversing the summit of a small bench or T2 terrace above the first (T1) river terrace. This bench was believed to be the location of more extensive Phase II testing (three contiguous one-meter square Test Units) during the earlier survey (see Appendix A: Photographs 10 and 11).





On May 30th and May 31st, Ms. Haugh and Ms. Lavallee proceeded to excavate the plotted STPs in the vicinity of the northern stream channel (Transect 2 and portions of Transect 1), the southern swale (Transect 3), and Transect 4. Four more transects, containing a total of eight STPs, were plotted closely adjacent to the southern boundary of the Project and bracketing the wetland/spring seep on the uppermost terrace that serves as the primary water source for the northern stream channel (Transects 5-8) (see Appendix: Photographs 25-28 and 36-39). Transects 5-8 were also excavated on May 31st.

On June 1st, S. Haugh and J. Lavallee proceeded to excavate Transect 1 STPs T 1-2-T 1-8, bringing the total number to 28 completed STPs (one plotted STP, T 5-2, was not excavated due to inundation). At this juncture, given that no STP had yet proven positive for the presence of prehistoric cultural material, NEA engaged in consultation with Dr. Arthur Spiess of the MHPC as to the most productive and efficient survey approach. Based on this discussion, NEA decided to forego Test Unit excavations and subsequently tested every potentially sensitive landform adjacent to or in the vicinity of the Project area with the addition of six more STP Transects, bringing the total number of plotted STPs to 53 (one unexcavated). Transect 9 contained four STPs and was located on a small, jutting extension of the uppermost (T3) terrace overlooking the small bench/T2 terrace tested by Transect 4 and the lowest (T1) terrace containing the NEA baseline T-1 (see Appendix A: Photographs 21-23). Transects 10 and 11, containing a total of ten STPs, were located on the small bench/T2 terrace, beginning south of Transect 4 and terminating on the north side of the southern swale (see Appendix A: Photographs 16-20). Transects 12 and 13, containing a total of seven STPs, were located on a small rise immediately south of the southern swale (see Appendix A: Photographs 14-15). Transect 14, containing three STPs, was located on a small area of level terrain closely adjacent to the powerhouse complex and the Project boundary (see Appendix A: Photograph 40). The remaining STPs were excavated by S. Haugh and J. Lavallee on June 1st, and S. Haugh and H. Locking on June 4th and June 5th.

Shovel Tests No. T 1-A, T 1-B, and T 1-1-T 1-11

Thirteen (13) of the eighteen (18) STPs plotted on or near Site ME 8.20 along the initial NEA baseline were excavated and achieved an average depth of 51.0 cm below present surface (see Appendix B). STPs T 1-12–16 were not excavated either due to location on severely sloping terrain or position within the extensively disturbed portions of the historic refuse dump to the south of the power station complex. No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the thirteen (13) STPs excavated on or near Site ME 8.20.

Shovel Tests No. T 2-1-T 2-3

Three (3) STPs plotted on or near Site ME 8.20 in the vicinity of the northern stream channel were excavated and achieved an average depth of 39.3 cm below present surface (see Appendix B). No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the three (3) STPs excavated on or near Site ME 8.20.

Shovel Tests No. T 3-1-T 3-2

Two (2) STPs plotted on or near Site ME 8.20 in the vicinity of the southern swale were excavated and achieved an average depth of 59.5 cm below present surface (see Appendix B). No indications of intact prehistoric or historic artifacts or cultural features were recovered from either of the two (2) STPs excavated on or near Site ME 8.20.

Shovel Tests No. T 4-1-T 4-3

Three (3) STPs plotted on or near Site ME 8.20 in the central portion of the site were excavated and achieved an average depth of 55.3 cm below present surface (see Appendix B). No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the three (3) STPs excavated on or near Site ME 8.20.

Shovel Tests No. T 5-1-T 5-2

Two (2) STPs plotted on or near Site ME 8.20 in the vicinity of the wetland/spring seep source of the northern stream channel were excavated and achieved an average depth of 65.0 cm below present surface (STP T 5-1 was not excavated due to position within standing water) (see Appendix B). No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the one (1) STP excavated on or near Site ME 8.20.

Shovel Tests No. T 6-1-T 6-2

Two (2) STPs plotted on or near Site ME 8.20 in the vicinity of the wetland/spring seep source of the northern stream channel were excavated and achieved an average depth of 52.5 cm below present surface (see Appendix B). No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the two (2) STPs excavated on or near Site ME 8.20.

Shovel Tests No. T 7-1-T 7-2

Two (2) STPs plotted on or near Site ME 8.20 in the vicinity of the wetland/spring seep source of the northern stream channel were excavated and achieved an average depth of 57.5 cm below present surface (see Appendix B). No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the two (2) STPs excavated on or near Site ME 8.20.

Shovel Tests No. T 8-1-T 8-2

Two (2) STPs plotted on or near Site ME 8.20 in the vicinity of the wetland/spring seep source of the northern stream channel were excavated and achieved an average depth of 44.5 cm below present surface (see Appendix B). No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the two (2) STPs excavated on or near Site ME 8.20.

Shovel Tests No. T 9-1-T 9-4

Four (4) STPs plotted on or near Site ME 8.20 on an extension of the uppermost terrace overlooking the central portion of the site were excavated and achieved an average depth of 41.25 cm below present surface (see Appendix B). No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the four (4) STPs STPs excavated on or near Site ME 8.20.

Shovel Tests No. T 10-1-T 10-4

Four (4) STPs plotted on or near Site ME 8.20 along a secondary terrace extending southwards from the central portion of the site were excavated and achieved an average depth of 54.0 cm below present surface (see Appendix B). No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the four (4) STPs excavated on or near Site ME 8.20.

Shovel Tests No. T 11-1-T 11-6

Six (6) STPs plotted on or near Site ME 8.20 along a secondary terrace extending southwards from the central portion of the site were excavated and achieved an average depth of 52.6 cm below present surface (see Appendix B). No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the six (6) STPs excavated on or near Site ME 8.20.

Shovel Tests No. T 12-1-T 12-4

Four (4) STPs plotted on or near Site ME 8.20 on higher ground immediately south of the southern swale were excavated and achieved an average depth of 23.25 cm below present surface (see Appendix B). Soil conditions were extremely hydric. No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the four (4) STPs excavated on or near Site ME 8.20.

Shovel Tests No. T 13-1-T 13-3

Three (3) STPs plotted on or near Site ME 8.20 on higher ground immediately south of the southern swale were excavated and achieved an average depth of 27.3 cm below present surface (see Appendix B). Soil conditions were extremely hydric. No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the three (3) STPs excavated on or near Site ME 8.20.

Shovel Tests No. T 14-1-T 14-3

Three (3) STPs plotted near Site ME 8.20 in the vicinity of the power station complex on a small portion of the level terrace overlooking the river were excavated and achieved an average depth of 36.3 cm below present surface (see Appendix B). Soil deposits were characterized by cut and fill. No indications of intact prehistoric or historic artifacts or cultural features were recovered from any of the three (3) STPs excavated on or near Site ME

3.0 SUMMARY AND RECOMMENDATIONS

A Phase II archaeological survey of the Village at Little Falls Project in the Town of South Windham, Cumberland County, Maine, was undertaken by NEA, Inc. Archaeological Services Group on behalf of Northeast Civil Solutions, Inc., Scarborough, Maine. Background research and archaeological site file search were conducted at the Maine Historic Preservation Commission, Augusta, Maine.

A pedestrian archaeological investigation (visual assessment and site walkover) was conducted in areas of potential archaeological sensitivity as defined in the Phase II proposal and scope of work. A Phase II archaeological investigation (systematic subsurface test excavations) was conducted adjacent to the Project on or near Site ME 8.20 to obtain detailed information primarily on the archaeological site's boundary or extent with regard to potential Project impacts, and potential to yield more information important to the understanding of the surrounding area's history and prehistory.

A total of 52 STPs were excavated for the Phase II archaeological investigation for the Project at or near Site ME 8.20. The STPs were distributed on a series of potentially sensitive landforms, such as level terraces and benches, spring seeps, and knolls, overlooking the eastern shoreline of the Presumpscot River immediately south of the power station complex and adjacent to the Project boundary.

The Phase II archaeological survey established that the prehistoric site central or core area may not be as extensive as proposed by earlier studies. Based on the results of this Phase II archaeological survey, determining that Site ME 8.20 will not be adversely affected by Project construction and/or subsequent post construction, surface water runoff patterns, NEA recommends no further archaeological investigations for the Village at Little Falls Project.

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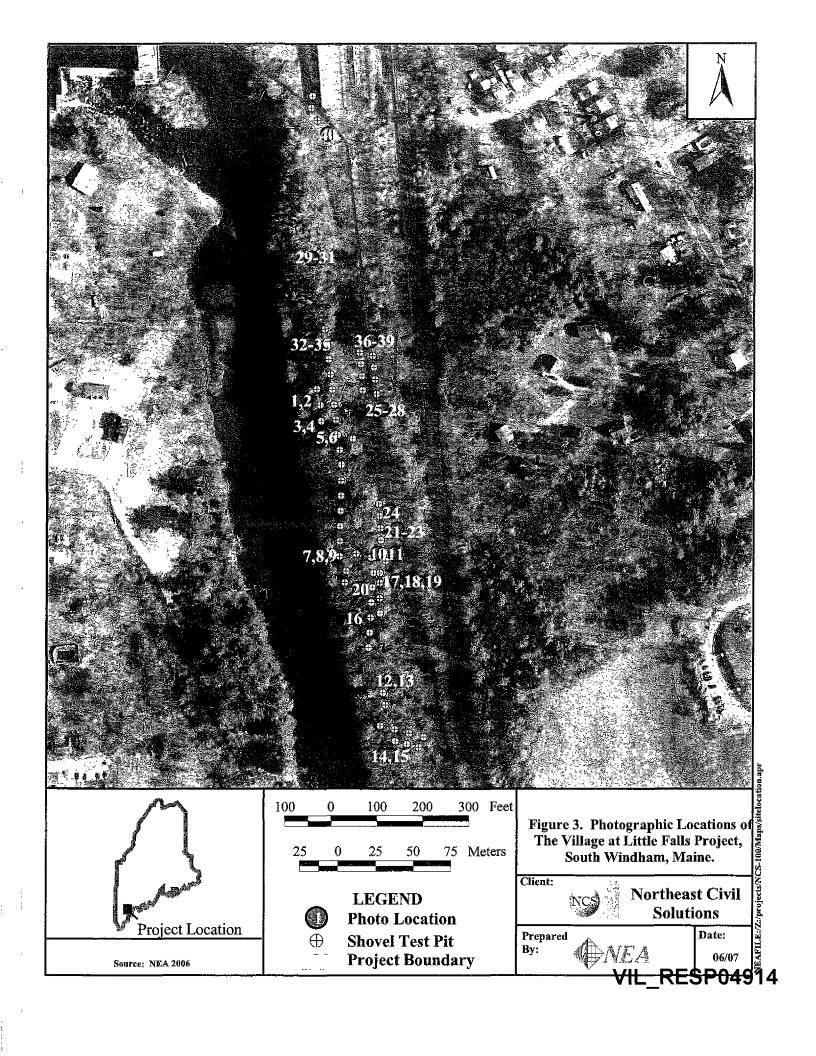
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APPENDIX A

The Village at Little Falls Development Project, South Windham, Maine

Phase II Photographic Record



PHOTOGRAPHIC RECORD

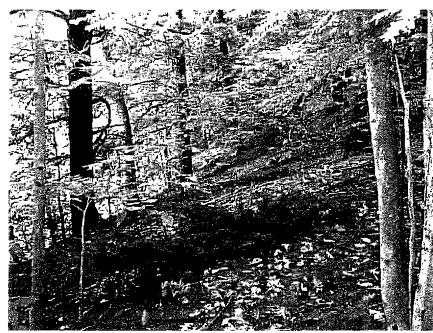
Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project: Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge Date: 5/31/2007

Photo No.: 1
Direction: N

Comments: Photographer positioned at NEA STP T-2-2, looking north. This position appears to be located at a D. Wilson positive STP (Wilson and Bourque 2000).



Photographer: S. Eldridge

Date: 5/31/2007

Photo No.: 2
Direction: S

Comments: Photographer
positioned at NEA STP T-2-2,
looking south. This position
appears to be located at or near
a D. Wilson positive STP
(Wilson and Bourque 2000).

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project: Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge **Date:** 5/31/2007

Photo No.: 3
Direction: E

Comments: Photographer positioned at NEA STP T-2-1, looking east, "northern stream channel" visible. This position appears to be located at or near a D. Wilson positive STP (Wilson and Bourque 2000).



Photographer: S. Eldridge 5/31/2007

Photo No.: 4
Direction: S

Comments: Photographer
positioned at NEA STP T-2-1,
looking south, "northern stream
channel" visible. This position
appears to be located at or near
a D. Wilson positive STP
(Wilson and Bourque 2000).

PHOTOGRAPHIC RECORD

Company:

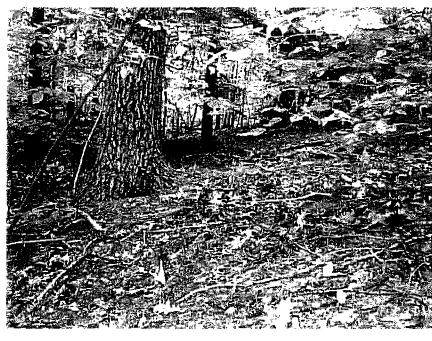
Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project:

Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge **Date:** 5/31/2007

Photo No.: 5

Direction: NE

Comments: Photographer positioned approximately 2 meters south of NEA STP T-1-9 (pink pin flag), looking northeast, "northern stream channel" visible upper left of photograph. This position appears to be located at or near a D. Wilson positive STP (marked with white pin flag in foreground) (Wilson and Bourque 2000).



Photographer: S. Eldridge 5/31/2007

Date: 5/31/ Photo No.: 6

Direction: W

Comments: Photographer positioned approximately 2 meters south of NEA STP T-1-9, looking west in direction of Presumpscot River shoreline, "northern stream channel" visible lower right of photograph. This position appears to be located at or near a D. Wilson positive STP (Wilson and Bourque 2000).

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project:

Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge **Date:** 5/31/2007

Photo No.: 7
Direction: NE

Comments: Photographer positioned at NEA STP T-1-1, located on first terrace above the river, looking northeast. This position appears to be located directly upon a D. Wilson positive STP (Wilson and Bourque 2000).

Presumpscot River visible in left portion of photograph.



Photographer: S. Eldridge

Date: 5/31/2007

Photo No.: 8
Direction: S

Comments: Photographer positioned at NEA STP T-1-1, located on first terrace above the river, looking south. This position appears to be located directly upon a D. Wilson positive STP (Wilson and Bourque 2000). Presumpscot River visible in right portion of photograph. Slope increases south of this position, leveling out again in vicinity of "southern swale" location.

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project: Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge 5/31/2007

Photo No.: 9
Direction: SE

Comments: Photographer positioned at NEA STP T-1-1, located on first terrace above the river, looking southeast. This position appears to be located directly upon a D. Wilson positive STP (Wilson and Bourque 2000).



Photographer: S. Eldridge

Date: 5/31/2007

Photo No.: 10 Direction: W

Comments: Photographer positioned at NEA STP T-4-2, located on a small bench overlooking lowest terrace above the river, looking west. This position appears to be located adjacent to a D. Wilson positive Test Unit excavation (Wilson and Bourque 2000).

PHOTOGRAPHIC RECORD

Company:

Project:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Windham, ME

NEA Project Code: NCS-100



Photographer: S. Late: 5/3

S. Eldridge 5/31/2007

N. Photo No.:

11

Direction:

SW

Comments: Photographer positioned at what appears to be a former one-meter Test Unit clocation; back-dirt piles visible in left foreground. NEA STP T-4-2 visible in distance.



Photographer: S. Eldridge **Date:** 5/31/2007

Photo No.: 12

Direction: N

Comments: Photographer positioned at NEA STP T-3-1, looking north towards "southern swale" at southern terminus of Site No. 8.20 as demarcated by D. Wilson (Wilson and Bourque 2000). Swale visible in middle distance of photograph.

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project: Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge
Date: 5/31/2007
Photo No.: 13

Direction: N

Comments: Photographer positioned at NEA STP T-3-1, looking north towards "southern swale" at southern terminus of Site No. 8.20 as demarcated by D. Wilson (Wilson and Bourque 2000). Swale visible in middle distance of photograph, and drains into Presumpscot River visible left of photograph. High rate of surface runoff and scouring visible in this area of the site.



Photographer: S. Eldridge

Date: 6/5/2007

Photo No.: 14
Direction: N

Comments: Photographer positioned at NEA STP T-13-3, looking north. This position is apparently several meters south of the southern terminus of Site No. 8.20 as demarcated by D. Wilson (Wilson and Bourque 2000).

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project:

Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge
Date: 6/5/2007
Photo No.: 15

EDirection:

Comments: Photographer positioned at NEA STP T-13-3, looking east. This position is apparently several meters south of the southern terminus of Site No. 8.20 as demarcated by D. Wilson (Wilson and Bourque 2000). View includes power line ROW in middle distance; Maine Central RR immediately beyond power line ROW.



Photographer: S. Eldridge

Date: 6/5/2007

Photo No.: 16

Direction: N

Comments: Photographer located at NEA STP T-11-3,

looking north.

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project: Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge
Date: 6/5/2007
Photo No.: 17

Direction: W

Comments: Photographer positioned at NEA STP T-10-2, looking west, Presumpscot River visible in distance.



Photographer: S. Eldridge

Date: 6/5/2007

Photo No.: 18 Direction: N

Comments: Photographer positioned at NEA STP T-10-2,

looking north.

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project: Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge **Date:** 6/5/2007

Photo No.: 19

Direction: E

Comments: Photographer positioned at NEA STP T-10-2, Plooking east towards power line

ROW.



Photographer: S. Eldridge Date: 6/5/2007 Photo No.: 20

Direction: NW

Comments: Photographer positioned at NEA STP T-11-5, looking northwest down slope towards a portion of lowest terrace (location of NEA baseline and location of D. Wilson positive STP (Wilson and Bourque 2000).

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project: Windham, ME

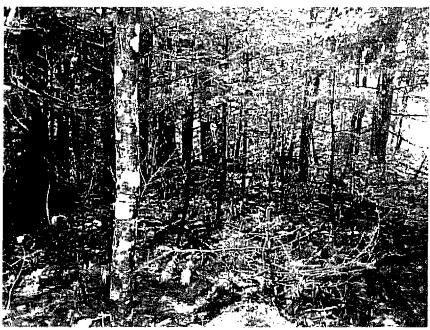
NEA Project Code: NCS-100



Photographer: S. Eldridge
Date: 6/5/2007

Photo No.: 21 Direction: W

Comments: Photographer positioned at NEA STP T-9-1, on highest terrace, looking west.



Photographer: S. Eldridge

Date: 6/5/2007 **Photo No.:** 22

Direction: N

Comments: Photographer positioned at NEA STP T-9-1, on highest terrace, looking north. Powerline ROW on immediate right of photograph

position.

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project:

Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge 6/5/2007

Photo No.: 23 Direction: E

Comments: Photographer positioned at NEA STP T-9-1, on highest terrace, looking east at powerline ROW.



Photographer: S. Eldridge

Date: 6/5/2007

Photo No.: 24 Direction: W

Comments: Photographer positioned at NEA STP T-9-2, on highest terrace, looking west. Possible position of former one meter Test Unit excavation (Wilson and Bourque 2000) in foreground.

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project: Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge **Date:** 6/5/2007

Photo No.: 25
Direction: S

Comments: Photographer positioned at NEA STP T-5-1, on highest terrace, looking south. Little Falls Village Project boundary located within tree line on left of photograph.



Photographer: S. Eldridge **Date:** 6/5/2007

Photo No.: 26

Direction: W

Comments: Photographer positioned at NEA STP T-5-1, on highest terrace, looking west.

PHOTOGRAPHIC RECORD

Company:

Project:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge
Date: 6/5/2007
Photo No.: 27

Photo No.: 27
Direction: N

Comments: Photographer positioned at NEA STP T-5-1, on highest terrace, looking north. Wetland in foreground is water source for "northern stream channel". Little Falls Village Project boundary located within tree line visible in right portion of photograph. Power station buildings visible in distance.



Photographer: S. Eldridge

Date: 6/5/2007

Photo No.: 28
Direction: E

Comments: Photographer positioned at NEA STP T-5-1, on highest terrace, looking east. Southern limit of Little Falls Village Project boundary located within tree line visible in photograph (orange flagging). Central Maine RR grade visible in distance (sunlit corridor).

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project: Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge
Date: 6/5/2007
Photo No.: 29

Direction: S

Comments: Photographer located on highest terrace due south of former mill buildings, on east bank of Presumpscot River, 10 to 12 meters above river level. Note extensive and arbitrary amateur excavation in historic (early 20th C, to present) dumping site(s). This position also approximates UTM coordinates for Site No. 8.20 as supplied by D. Wilson (Wilson and Bourque 2000).



Photographer: S. Eldridge
Date: 6/5/2007
Photo No.: 30
Direction: W

Comments: Photographer located on highest terrace due south of former mill buildings, on east bank of Presumpscot River, 10 to 12 meters above severe slope to river level. Note extensive and arbitrary amateur excavation in historic (early 20th C. to present) dumping site(s). This position also approximates UTM coordinates for Site No. 8.20 as supplied by D. Wilson (Wilson and Bourque 2000).

PHOTOGRAPHIC RECORD

Company:

Project:

Northeast Civil Solutions, Scarborough, ME

Village at Little Fails Development Project, S.

Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge
Date: 6/5/2007
Photo No.: 31

N

Direction:

Comments: Photographer clocated on highest terrace due south of former mill buildings, on east bank of Presumpscot River, 10 to 12 meters above river level. Note extensive and arbitrary amateur excavation in historic (early 20th C. to present) dumping site(s). This position also approximates UTM coordinates for Site No. 8.20 as supplied by D. Wilson (Wilson and Bourque 2000).



Photographer: S. Eldridge 6/5/2007

Photo No.: 32

Comments: Photographer
positioned at southern limit of
famateur excavations of historic
dump site(s). Photographs No.
32-35 taken at same position,
also from which NEA STPs are
visible in distance (NEA testing
on northern bank of "northern
stream channel"; NEA STP T2-3 partially visible as a cluster
of three, pink pin flags in center
of photograph).

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Fails Development Project, S.

Project: Windham, ME

NEA Project Code: NCS-100



Photographer: S. Eldridge **Date:** 6/5/2007

Photo No.: 33

Comments: Photographer positioned at southern limit of amateur excavations of historic

W

dump site(s).

Direction:



Photographer: S. Eldridge

Date: 6/5/2007

Photo No.: 34

Direction: N

Comments: Photographer positioned at southern limit of amateur excavations of historic

dump site(s).

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S Windham, ME

Project:

NEA Project Code: NCS-100



Photographer: S. Eldridge
Date: 6/5/2007
Photo No.: 35
Direction: E

Comments: Photographer positioned at southern limit of amateur excavations of historic dump site(s). NEA STP T-1-15 (NEA baseline) visible in upper right of photograph.



Photographer: S. Eldridge
Date: 6/5/2007
Photo No.: 36
Direction: S

Comments: Photographer positioned at NEA STP T-8-2,

looking south.

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Project:

Windham, ME

NEA Project Code; NCS-100



Photographer: S. Eldridge
Date: 6/5/2007
Photo No.: 37
Direction: W

Comments: Photographer positioned at NEA STP T-8-2,

looking west.



Photographer: S. Eldridge **Date:** 6/5/2007

Photo No.: 38
Direction: N

Comments: Photographer positioned at NEA STP T-8-2,

looking north.

PHOTOGRAPHIC RECORD

Company:

Northeast Civil Solutions, Scarborough, ME

Village at Little Falls Development Project, S.

Windham, ME Project:

NEA Project Code: NCS-100



Photographer: S. Eldridge Date: 6/5/2007 Photo No.: 39

Comments: Photographer positioned at NEA STP T-8-2, looking east at Project boundary (inside of tree line on opposite side of power line ROW).

E



A-21

Photographer: S. Eldridge

6/5/2007 Date:

Photo No.: 40

NW Direction:

Comments: Excavators positioned at NEA STP T-14-1 adjacent to Project boundary; Project corner stake visible in right of photograph.

APPENDIX B

The Village at Little Falls Development Project, South Windham, Maine

Phase II Shovel Test Pit Characteristics and Artifact Inventory

T-STP	Level	<u>Depth</u>	Munsell	Soil Composition	Inclusions	Soil Compaction	Artifacts	Description and Period	Notes	<u>Date</u>
T 1-A	I	11-26 cm	2.5 y 4/4	sandy silt	roots/rock	moderate	negative		10 m south of T!-1	6/1/2007
	П	26-38 cm	2,5 y 5/4	silty sand	roots/rock	moderate	negative			6/1/2007
	ш	38-49 cm	2.5 y 5/3	silty clay	roots/rock	moderate	negative			6/1/2007
	ΓV	49-64 cm	2.5 y 5/6	silty sand	roots/rock	moderate	negative			6/1/2007
T 1-B	I	8-17 cm	10 уг 3/4	sandy silt	roots/rock	moderate	negative		20 m south of T1-1	6/1/2007
[П	17-33 cm	10 yr 4/6	silty sand	roots/rock	moderate	negative			6/1/2007
	Ш	33-53 cm	10 yr 4/4	silty sand	roots/rock	moderate	negative			6/1/2007
T 1-2	I	5-31 cm	2.5 y 4/3	silty clay	roots	moderate	negative		T1-1= D. Wilson 50 x 50cm STP (Wilson and Bourque 2000)	6/1/2007
	П	31-46 cm	2.5 y 5/6	silty sand	roots	moderate	negative			6/1/2007
	ш	46-57 cm	2.5 y 4/4	silty sand	roots	moderate	negative			6/1/2007
T 1-3	ĭ	7-21 cm	10 yr 3/2	silty sand	roots	moderate	negative			6/1/2007
	П	21-39 cm	10 yr 5/8	silty sand	roots	moderate	negative			6/1/2007
	Ш	39-50 cm	2.5 y 5/6	silty sand	roots	moderate	negative			6/1/2007
T 1-4	I	5-27 cm	2.5 y 4/2	sandy silt	roots	moderate	negative			6/1/2007
	11	27-48 cm	10 yr 4/6	sifty sand	roots	moderate	negative			6/1/2007
	Ш	48-61 cm	2.5 y 5/6	silty sand	roots	moderate	negative			6/1/2007
T 1-5	I	4-17 cm	2.5 y 4/2	clay	roots	moderate	negative			6/1/2007
	II	17-30 cm	2.5 y 6/2	clay	roots	moderate	negative			6/1/2007
T I-6	I	2-17 cm	2.5 y 4/3	silty clay	roots/gravel	moderate	negative			6/1/2007
	11	17-26 cm	2.5 y 5/3	clay	roots/gravel	moderate	negative			6/1/2007
	IΠ	26-40 cm	2.5 y 4/4	sandy clay	roots/gravel	moderate	negative			6/1/2007
T 1-7	I	9-24 cm	10 yr 4/3	sandy silt	roots	moderate	negative		quartz shatter on slope, next to natural run off	6/1/2007
	П	24-37 cm	10 yr 4/4	silty sand	roots/gravel	moderate	negative			6/1/2007
	Ш	37-46 cm	2.5 y 4/4	silty clay	roots/gravel	moderate	negative			6/1/2007
T 1-8	I	8-22 cm	10 yr 3/3	sandy silt	roots/gravel	moderate	negative			6/1/2007
	n	22-43 cm	7.5 yr 4/6	silty sand	roots/gravel	moderate	negative			6/1/2007
	Ш	43-55 cm	10 yr 5/8	silty sand	roots/gravel	moderate	negative			6/1/2007
T i-9	I	7-13 cm	10 yr 3/3	silty loam	roots/gravel	moderate	negative		south bank of northern stream channel, 2m from Wilson STP	5/30/2007
	П	36 cm	10 yr 5/3	sandy silt	roots/gravel	moderate	negative			5/30/2007
T	П	52 cm	10 yr 5/2	sandy silt	roots/gravel	moderate	negative			5/30/2007
T 1-9 E	I	4-13 cm	10 yr 3/3	silty loam	roots/gravel	moderate	negative			5/30/2007
	П	13-26 cm	10 yr 4/4 M	sandy silt	roots/gravel	moderate	negative			5/30/2007
	Ш	26-49 cm	10 yr 5/6	silty sand	roots/gravel	moderate	negative			5/30/2007
T 1-10	I	4-7 cm	10 yr 3/2	silty loam	roots/angular rock	moderate	negative			5/30/2007
	П	7-13 cm	10 yr 4/4	sandy silt	roots/angular rock	moderate	positive	glass, historic		5/30/2007
	nı	13-50 cm	7 5 yr 4/6	sandy silt	roots/angular rock	moderate	negative			5/30/2007
T 1-11	I	3-12 cm	10 yr 3/4	silty loam	angular rock, gravel	moderate	negative		15 - 20 degree slope	5/30/2007
	П	12-23 cm			angular rock, gravel	moderate	negative			5/30/2007
1	ш		10 yr 5/8	silty sand	angular rock, gravel	moderate	negative			5/30/2007
T 2-1	I	5-14 cm	10 yr 3/3	silty loam	roots/angular rock	moderate	negative		8m from T1-10, 5m North of northern stream channel	5/30/2007
	П		10 yr 3/6	sandy silt	roots/angular rock	moderate	negative	<u> </u>	The state of the s	5/30/2007
<u> </u>	ш		2.5 y 6/6	silty sand	roots/angular rock	moderate	negative	 		5/30/2007
T 2-2	T	9-14 cm	10 yr 3/4	silt	rock, gravel, roots	moderate	negative		on edge of slope 15 degrees	5/30/2007
1 2-2	П		7.5 yr 4/6	sandy silt	rock, gravel, roots	moderate	negative		on order of slope 13 degrees	5/30/2007
	m —		10 yr 4/6 M	silty sand	rock, gravel, roots	moderate	negative	 		5/30/2007
	īv		10 yr 5/8	silty sand	angular rock, gravel		negative			5/30/2007
L	TT A	130-36 cm	10 yr 3/6	lem's saud	jangulai Tock, gravel	moderate	Inegative	L		J. 3/30/20

T-STP	<u>Level</u>	<u>Depth</u>	Munsell	Soil Composition	Inclusions	Soil Compaction	Artifacts	Description and Period	Notes	Date
T 2-3	I	6-8 cm	10 yr 2/1	silty loam	roots/gravel	moderate	negative		15 degree slope	5/30/2007
	ΙΙ	8-15 cm	10 yr 4/6	sandy silt	roots/gravel	moderate	negative			5/30/2007
	Ш	15-29 cm	7.5 yr 5/8	silty sand	roots/gravel	moderate	negative			5/30/2007
	IV	29-47 cm	10 yr 5/8	silty sand	roots/gravel	moderate	negative			5/30/2007
Т 3-1	I	6-23 cm	10 yr 4/4	silty loam	roots/gravel	moderate	negative		on South side of swale on terrace bordering river	5/30/2007
	I.I.	23-50 cm	10 yr 5/6	sandy silt	roots/gravel	low	negative			5/30/2007
	Ш	50-63 cm	10 yr 6/6	silty sand	roots/gravel	low	negative			5/30/2007
T 3-2	I	8-22 cm	2,5 y 4/3	sandy silt	roots	moderate	negative			5/30/2007
	П	22-41 cm	10 yr 5/6	sandy stit	roots	low	negative			5/30/2007
	ш		2.5 y 5/6	sandy silt	roots	iow	negative			5/30/2007
T 4-1	I	4-13 cm	10 vr 3/3	silty loam	angular rocks	moderate	negative		10m East of Wilson STP, crest of knoll, bedrock	5/31/2007
	П	13- 27 cm		sandy silt	angular rocks	moderate	negative			5/31/2007
· · · · · ·	III	27-37 cm	10 vr 4/4	silty sand	angular rocks	moderate	negative			5/31/2007
	IV	37-48 cm	10 yr 4/6	silty sand	angular rocks	moderate	negative			5/31/2007
T 4-2	T	6-15 cm	10 yr 3/3	silty loam	cobbles.rocks, roots	moderate	negative		bedrock at base of STP	5/31/2007
	П		10 yr 3/4	silty loam	cobbles,rocks,roots	moderate	negative		0.000	5/31/2007
	Ш	43- 58 cm		sandy silt	cobbles,rocks,roots	moderate	negative			5/31/2007
T 4-3	ī	7-26 cm	10 yr 3/2	silty clay	roots/gravel	moderate	negative		on contour bordering access rd. and drainage. Bedrock	5/31/2007
1 7 2	ii ii		10 yr 3/3	sandy clay	roots/gravel	moderate	negative		on contour bordering access to, and dramage. Bedrock	5/31/2007
	III		10 yr 3/6	silty sand	roots/gravel	moderate	negative			5/31/2007
T 5-1	1	8-25 cm	10 yr 3/2	silty loam	roots/gravel	moderate	negative			5/31/2007
1 5 1	II.	25-46 cm		silty loam	roots/gravel	moderate	negative			5/31/2007
	m		2.5 y 4/4 M	silty sand	roots/gravel	moderate	negative			5/31/2007
T 5-2		cavated- with		Sitty Sand	100th graves	moderate	negauve		10m at 110 degrees from T1-10	5/31/2007
T 6-1	I	12-16 cm		sulty clay	large angular rock	low	negative	 	on northern stream bank, adjacent standing water.	5/31/2007
1 0-1	П	16-30 cm		silty clay	large arigular fock	low	negative		on normern stream bank, adjacem standing water.	5/31/2007
	m	30-55 cm		sandy clay		low	negative			5/31/2007
	IV	Inundated		saliuy ciay		IOW			1197	
T 6-2	1 V	4-10 cm	10 yr 3/2	ailes Sa a-s			negative		with the first of Asian (and the same first)	5/31/2007
1 0-2	1	4-10 Cm		silty loam	 	moderate	negative		within 5m of drainage/northern stream bank	5/31/2007
		10 21	10 yr 3/3	-7		moderate	negative	ļ		5/31/2007
	П		7.5 yr 5/8	silty sand		moderate	negative			5/31/2007
m a .	m	31-50 cm		silty sand	FO. 1 1 7 0 / . 1	moderate	negative			5/31/2007
T 7-1	<u> </u>	3-27 cm	10 yr 3/2	sandy silt	50+ brick frag/gravel		negative		within 5m of drainage/northern stream bank	5/31/2007
	Ш	33-53 cm		sandy silt	50+ brick frag/gravel		negative			5/31/2007
	IV	53-65 cm	10 yr 4/2	silty clay	50+ brick frag/gravel	· · · · · · · · · · · · · · · · · · ·	negative		<u> </u>	5/31/2007
T 7-2	II	7-18 cm	10 yr 3/2	silty loam	roots/gravel	moderate	negative			5/31/2007
<u> </u>			10 yr 4/6	silty sand	roots/gravel	moderate	negative			5/31/2007
75.0.1	III	30-50 cm		silty sand	roots/gravel	moderate	negative			5/31/2007
T 8-1	1	9-28 cm	10 yr 3/2	silty loam	roots, rock/gravel	moderate	negative			5/31/2007
	П	28-43 cm	7.5 yr 4/4	sandy silt	roots, rock/gravel	moderate	negative			5/31/2007
m. o. o	m	43-54 cm	10 yr 4/6	silty sand	roots, rock/gravel	moderate	negative			5/31/2007
T 8-2	- I	15-19 cm	10 yr 3/3	silty loam	roots/gravel	moderate	negative			5/31/2007
ļ	п	19-30 cm	10 yr 4/4	silty sand	roots/gravel	moderate	negative	ļ		5/31/2007
m o :	Ш	30-35 cm	10 yr 5/6	silty sand	roots/gravel	moderate	negative	<u></u>		5/31/2007
T 9-1	I.	8-24 cm	10 yr 3/2	siltl loam	roots, rock/gravel	moderate	negative			6/1/2007
	Ш	24-40 cm	10 yr 3/3	silty sand	roots, rock/gravel	moderate	negative			6/1/2007
L	Ш	bedrock		bedrock	bedrock	moderate	negative			6/1/2007

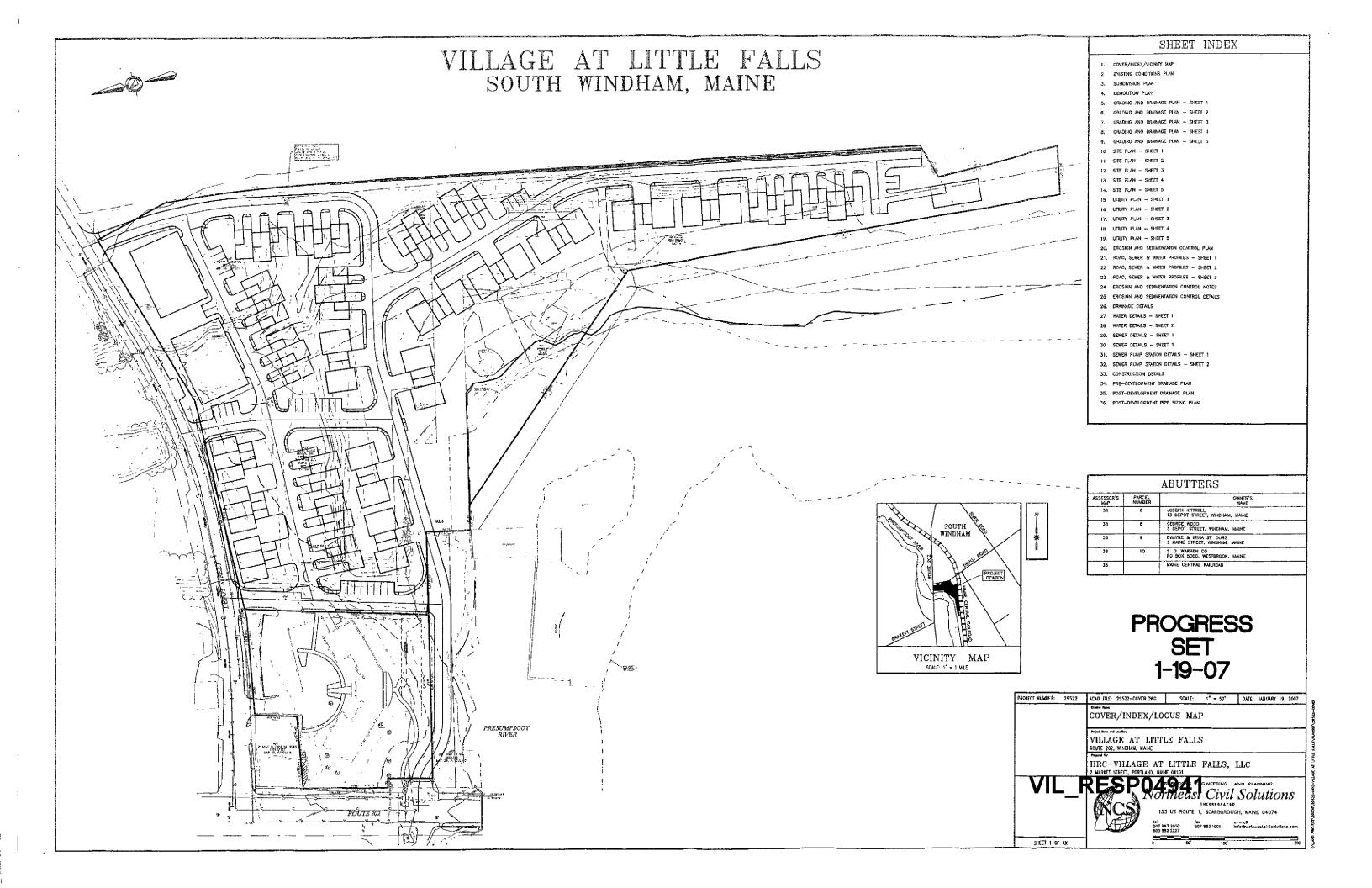
T-STP	Level	Depth	Munsell	Soil Composition	Inclusions	Soil Compaction		Description and Period	Notes	Date
T 9-2	I	6-23 cm	10 yr 2/2	siltl loam	roots, rock/gravel	moderate	negative			6/1/2007
	П	23-37 cm	10 yr 3/3	silty sand	roots, rock/gravel	moderate	negative			6/1/2007
	Ш	bedrock		bedrock	roots, rock/gravel	moderate	negative			6/1/2007
Г9-3	I	8-22 cm	10 yr 3/3	silty loam	roots, rock/gravel	moderate	negative			6/1/2007
	П	22-36 cm	10 yr 4/6	silty sand	roots, rock/gravel	moderate	negative			6/1/2007
	Ш	36-43 cm	10 yr 5/6	silty sand	fractured bedrock	moderate	negative			6/1/2007
r 9-4	ĭ	11-16 cm	10 yr 2/2	silty loam	heavy gravel	moderate	negative			6/1/2007
	П	16-30 cm	10 yr 4/4	sandy silt	roots, rock/gravel	moderate	positive	piece of slag, modern		6/1/2007
	ш	30-45 cm	7.5 yr 4/6	silty sand	roots, rock/gravel	moderate	negative			6/1/2007
Т 10-1	ĭ	3-15 cm	10 yr 3/3	silty loam	roots/gravel	moderate	negative		on terrace/knoll 10m from powerline ROW	6/4/2007
	П	15-37 cm	10 yr 4/3	silty sand	roots/gravel	moderate	negative			6/4/2007
	Ш	37-50 cm	10 yr 4/4	silty sand	bedrock	moderate	negative			6/4/2007
T 10-2	I	4-26 cm	10 yr 3/2	silty sand		moderate	negative			6/4/2007
	П		10 yr 4/6	silty sand		moderate	negative			6/4/2007
	ш		2.5 y 4/4	silty sand		moderate	negative			6/4/2007
T 10-3	ĭ	7-24 cm	10 yr 3/2	silty sand		moderate	negative			6/4/2007
	Ш	24-45 cm		silty sand		moderate	negative			6/4/2007
	Ш	45-54 cm		-	fractured bedrock		-	· · · · · · · · · · · · · · · · · · ·	1	6/4/2007
r 10-4	ì	7-37cm	10 yr 3/2	silty loam	roots/gravel	moderate	negative	-	1	6/4/2007
	П	37-52 cm		sandy silt	roots/gravel	moderate	negative			6/4/2007
	Ш	52-60 cm		silty sand	fractured bedrock	moderate	negative			6/4/2007
Г 11-1	T	0-20 cm	10 yr 3/2	silty loam	roots/gravel	moderate	negative		on terrace 20m from powerline ROW: 15m from river	6/4/2007
1 11-1	11	20-37 cm		sandy silt	roots/gravel	moderate	negative		ou terace zon from powering KO41. 15th from fiver	6/4/2007
	m	37-50 cm		sandy silt	roots/gravel	moderate	negative			6/4/2007
T 11-2	T	0-20 cm	10 yr 3/2	silty loam	roots/gravel	moderate	negative			6/4/2007
1 11-2	Π	20-37 cm		sandy silt	roots/gravel	moderate	negative			6/4/2001
	Ш	37-50 cm	10 yr 3/4	sandy silt	fractured bedrock	moderate	negative			6/4/200
T 11-3	- HIII	4-19 cm	10 yr 3/2	silty loam	roots/gravel	moderate	negative			6/4/200
1 11-3	п	19-31 cm		sandy silt	roots/gravel	moderate	negative			6/4/2007
	m	31-60 cm			fractured bedrock	moderate				6/4/2007
mara.	<u> </u>	0-10 cm	10 yr 3/2	sandy silt	roots/gravel	moderate	negative			6/4/200
T 11-4	П	10-27 cm		silty loam		· · · · · · · · · · · · · · · · · · ·	negative			
		10-27 cm	10 yr 4/3	silty sand	roots/gravel	moderate	negative			6/4/2007
m 11 6	Ш	27-57 cm	10 yr 5/0	silty sand	fractured bedrock	moderate	negative			6/4/2001
T 11-5	- 1	7-20 cm	10 yr 3/2	silty loam	roots/gravel	moderate	педацуе			6/4/2001
	п	20-41 cm	10 yr 3/4	sandy silt	roots/gravel	moderate	negative			6/4/2001
	Ш	41-53 cm		sandy silt	fractured bedrock	moderate	negative	<u> </u>		6/4/2001
T 11-6	11	6-18 cm	10 yr 2/2	sity loam	roots/gravel	moderate	negative			6/4/2001
	П		10 yr 4/4	sandy silt	roots/gravel	moderate	negative			6/4/200
	ın	30-46 cm	10 yr 4/6	sandy silt	fractured bedrock	moderate	negative			6/4/2001
T 12-1	<u> </u>	0-7 cm	10 yr 3/1	silty loam	roots/gravel	moderate	negative			6/5/2001
	П	7-31 cm	10 yr 4/4 M	silty clay	roots/gravel	moderate	negative			6/5/200
	Ш	31-58 cm	10 yr 5/6	sılty clay	roots/gravel	moderate	negative	<u> </u>		6/5/200
T 12-2	I	0-10 cm	10 yr 2/1	silty clay	gravel	moderate	negative			6/5/2001
	П	Inundated								6/5/200
T 12-3	I	0-10 cm	10 yr 2/1	silty clay	gravel	moderate	negative			6/5/200
	n	Inundated								6/5/200
T 12-4	I	0-15 cm	10 yr 2/1	silty clay	grave)	moderate	negative			6/5/200

T-STP	Level	<u>Depth</u>	<u>Munsell</u>	Soil Composition	Inclusions	Soil Compaction	Artifacts	Description and Period	Notes	<u>Date</u>
	II	Inundated:	at 10 cm							6/5/2007
T 13-1	I	0-10 cm	10 yr 2/1	silty clay		moderate	negative			6/5/2007
	П	10-16 cm	10 yr 5/8	silty clay		moderate	negative			6/5/2007
	ш	Inundated	at 16 cm							6/5/2007
T 13-2	I	0-6 cm	10 yr 2/1	silty clay		moderate	negative			6/5/2007
	П	6-13 cm	10 yr 5/8	silty clay		moderate	negative			6/5/2007
	Ш	Inundated	at 13 cm							6/5/2007
T 13-3	1	0-7 cm	10 yr 3/2	silty loam	roots/gravel	moderate	negative			6/5/2007
	П	7-35 cm	2.5 y 5/4	silty clay	roots/gravel	moderate	negative			6/5/2007
	ш	35-53 cm	2.5 y 4/4	silty clay	roots/grave!	moderate	negative			6/5/2007
T 14-1	I	0-8 cm	root mat			moderate	positive	glass, metal, modern nails	highly disturbed fill area	6/5/2007
	11	8-49 cm	gravel fill			moderate	positive	glass, metal, modern nails	highly disturbed fill area	6/5/2007
T 14-2	I	0-8 cm	root mat			moderate	positive	glass, metal, modern nails	highly disturbed fill area	6/5/2007
	П	8-31 cm	gravel fill			moderate	positive	glass, metal, modern nails	highly disturbed fill area	6/5/2007
	Ш	31-42 cm	10 yr 4/4	sandy siłt		moderate	positive	glass, metal, modern nails	highly disturbed fill area	6/5/2007
T 14-3	I	0-4 cm	root mat				negative			6/5/2007
	п	4-18 cm	10 yr 3/4	sılty loam		moderate	positive	glass, metal, modern nails	highly disturbed fill area	6/5/2007
	Ш	concrete at	base of pit				negative			6/5/2007

APPENDIX C

The Village at Little Falls Development Project, South Windham, Maine

Northeast Civil Solutions Site Plan (over-size)



APPENDIX D

ME Site No. 8.20 Phase II Site Map (Wilson and Bourque 2000: Figure 44)

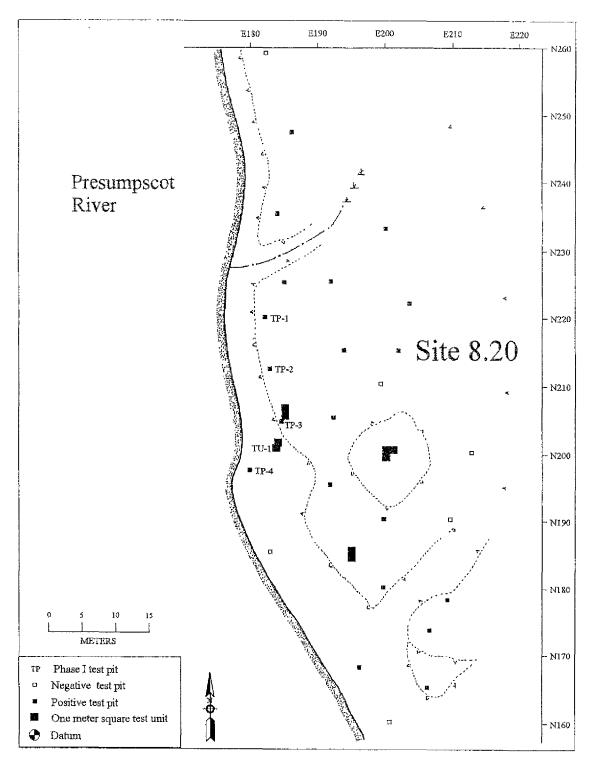


Figure 44: Site 8.20, location of archaeological test units.



Northeast Civil Solutions

INCORPORATED

June 11, 2007

RE: Village at Little Falls Environmental Project Review Comments

153 U.S. Route 1

Scarborough

Maine 04074

Mr. Ken Elowe, Director Bureau of Resource Management Maine Department of Inland Fisheries and Wildlife 284 State Street Station #41 Augusta, Maine 04333

tel

207.883.1000

800.882.2327

Dear Ken,

fax

207.883.1001

Enclosed, please find reduced size copies of the revised planset for the Village at Little Falls residential development. These drawings were revised based upon comments we received in your Comment Review Memorandum addressed to Marybeth Richardson of the Maine Department of Environmental Protection, dated April 23, 2007. The review comments are outlined below; our response to each comment follows in bold.

- 1. Based on the application, I was unclear exactly where and what is included in the buffer restoration plan? While I believe we are on the same page, there should be a specific sheet that clearly depicts the buffer(s), distances, plantings, etc. Additional hatching has been added to the grading plans in order to help clarify the restoration area. Please refer to Sheet 26 for additional restoration details and a restoration cross-section.
- 2. I am concerned about the project timing and instream/adjacent stream work during the winter months when site conditions cannot be permanently stabilized. No instream work would be allowed from 10-1 to July 1, and extra precautions need to take place from fall to winter in the areas immediately adjacent to the stream resource. A note prohibiting instream restoration between the dates October 1st and July 1st has been added to the Grading Plans, the Bank Restoration Plan, and the Erosion Control Notes Plan. Additional precautions for winter construction are outlined in the Erosion Control Notes on Sheet 24.
- 3. I have noticed several loads of sand dumped adjacent to the river within what I had considered to be part of the future stream bank restoration area (along emergency entrance on Sappi property) and there are no erosion control measures. Is this sand related t this project? In any case, it should

not have been dumped in this location, and certainly not without some form of containment. These sand piles are not part of the proposed development and are not located on the applicant's property; therefore the management of these stock piles are not within the control of the applicant.

Full size prints with these revisions will be provided to the Maine Department of Environmental Protection in conjunction with the revisions resulting from comments from the Geological Project Review Memorandum. Please feel free to give me a call at 207-883-1000 if you have any questions. Thank you.

Sincerely,

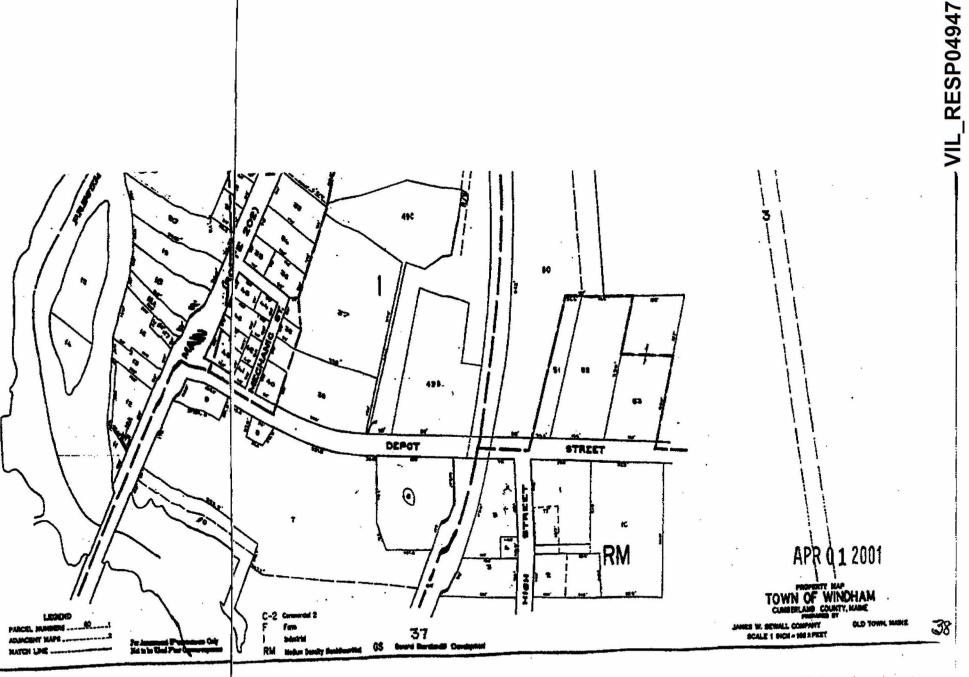
Northeast Civil Solutions, Inc.

Denise Cameron, P.E.

Danise Comeron

Project Engineer

CC: Steve Etzel, HRC-Village at Little Falls, LLC
Marybeth Richardson, Maine Department of Environmental Protection
James Pellerin, Maine Department of Inland Fisheries and Wildlife



Town of Windham

Planning Department 8 School Road Windham, ME 04062

voice 207.892.1902

fax 207.892.1916

MEMO

DATE: July 11, 2007

TO: Planning Board

FROM: Brooks More, Director of Planning

Cc: Lee Allen, P E Northeast Civil Solutions

Larry Bastian, P.E. Gorrill-Palmer Consulting Engineers

Windham Development Review Team

RE: 07-06 Village at Little Falls

Preliminary Major Subdivision and Final Site Plan Review

July 23rd, 2007 Planning Board Meeting

Overview -

This is an eighty-two (82) unit residential subdivision that is comprised of one (1) single family home, twenty-six (26) duplex and thirty-nine (39) triplex condominiums and a sixteen (16) unit apartment building.

The project received a Contract Zone on June 1, 2005. The text of the Village at Little Falls Contract Zone Agreement is included in the appendix of the Pre-application/Sketch submission of March 2007.

At the July 23rd, 2007 meeting, Staff recommends that the Board vote to find the application complete. This will start the review time limits in accordance with Section 30-A 4403 of State Law. In addition, the Board should schedule a public hearing in accordance with the Subdivision and Site Plan review ordinances.

Due to my upcoming vacation between July 12th and July 20th, I will not be able to include revisions proposed by the applicant in light of the third party review comments.

Note: In the conclusions section, all answers have been given for those items that have been completed. Items that are still under review, such as traffic and stormwater, are left unanswered. Once these issues have been resolved, the answers will be updated to reflect whether the item meets the review standard.

SUBDIVISION REVIEW

Staff Comments:

- 1. Waivers:
 - a) None
- 2. Complete Application: The Board should vote to find the application complete.
- 3. Public Hearing: A public hearing must be scheduled for this application. Staff recommends that the hearing be scheduled for August 27, 2007.
- 4. Site Walk: A site walk has not been held for this application.

Findings of Fact and conclusions for the

Windham Planning Board,

The Subdivision application for 07-06 Village at Little Falls on Tax Map: 38, Lots: 6 and 7 is to be (approved with conditions/denied) with the following findings of fact and conclusions

FINDINGS OF FACT

A. POLLUTION AND SEWERAGE DISPOSAL

• The project will be connected to the public sewer and water system. As a result, it will not produce an undue amount of pollution.

B. WATER

• The Portland Water District confirmed its capacity of serve the project in a letter dated March 16, 2007.

C. SOIL EROSION

- The project will require a Site Location of Development Permit from the Maine Department of Environmental Protection (MDEP).
- The applicant has received approval from the MDEP to meet the quality, but not quantity standards of Stormwater Management Law. The "beat-the-peak" method to stormwater discharge is appropriate for this site's proximity to the river. Once the peer review issues have been resolved, the proposed stormwater management plan will meet the standards of Section 213-39 of the Subdivision Ordinance.
- Larry Bastian, P.E. of Gorrill-Palmer Consulting Engineers performed the peer review of the stormwater, soil and erosion control plans. Bastian's comments can be found in the attached letter dated July 5th, 2007. The extent of the comments is too large to include in

- this memo. It is sufficient to say that the applicant will be responding to Mr. Bastian's comments with a follow-up letter and revised plans (See note in Overview section).
- A storm drain pipe running from Depot Street to the Presumpscot River has been identified on this site. The exact course of the buried pipe will not be known until site work commences. It does appear from die tests that the pipe runs under the existing mill building and discharges somewhere in the river. Since the pipe will be disturbed during the construction phase of the project, the Town has contracted with Pine Tree Engineering to create a plan for replacement of the pipe. At this time, the Town is awaiting the results of this study.

D. TRAFFIC

- The traffic study prepared by William J. Bray, P.E. concluded that the project will not require an MDOI Traffic Movement Permit, that there are no high-crash locations in the area, that the project will not decrease the level of service of the intersections in the study area, and that adequate sight distance exists at the proposed driveways.
- A peer review of the traffic study was conducted by Gorrill-Palmer Consulting Engineers, Inc. in a letter dated July 5, 2007. The review found that the study was completed in accordance with industry standard practices.
- The peer review listed five comments for consideration. The applicant will respond to these comments in their revised submission for the July 23rd, 2007 meeting.

E. SEWERAGE

- The project will connect to the public sewer system.
- Jay Hewett, P.E., Chief Engineer of the Portland Water District, will review the sewer system designs. Once complete, Mr. Hewett's review comments will be forwarded to the Planning Board.
- In letter dated March 16, 2007, the Portland water District confirmed its ability to serve the project once improvements have been completed. These improvements are currently under construction, and are anticipated to be completed at the end of 2007.
- The Portland Water District will assume responsibility for the wastewater collection system.
- A pump station will be constructed as part of this project. The pump station will replace the Windham Fire Pump and the Androscoggin Street Pump Station.

F. SOLID WASTE

• Solid Waste will be the responsibility of Home Owners Association.

G. AESTHETICS

• A letter from the Maine Department of Conservation dated December 12, 2005 has confirmed that no rare botanical features have been documented in the project area.

- A letter from the Maine IF&W dated January 17, 2006 confirmed that no endangered fish species or habitat exists in the vicinity of the project.
- The applicant received approval from the MDEP a Voluntary Response Action Program
 No Action Assurance Letter on November 9, 2005. The letter agreed with the applicant's
 proposed contamination mitigation plan. The plan included the removal and/or
 containment of soils contaminated by petroleum and PCBs.

H. CONFORMITY WITH LOCAL PLANS AND ORDINANCES

• Comprehensive Plan:

• The project is located within the South Windham Growth Area as depicted on the 2003 Future Land Use Map. The project also falls under Chapter 1, Section H, Subsection 6 that states, "A portion of South Windham, directly across the Presumpscot River from Gorham, should be designated as a growth area..."

Land Use Ordinances:

- The application meets the standards of the Village at Little Falls Contract Zone Agreement.
- Community Facilities Impact Analysis:
 - The applicant's analysis finds that the improvements to the site (removal of derelict mill building and pump station construction), increase in property taxes, and off-site improvements on Depot Street and recreation fees offset the increase of 8 students in the school system.
 - Staff recommends that the applicant provide per student cost figures. These figures should be adjusted to reflect State aid funds received by the Town. Staff can supply this figure to the applicant.
 - Staff recommends that the applicant check the statement in paragraph three (3) that the
 pre- and post-development stormwater runoff rates will be equal. It is staffs
 understanding that the project will use a beat-the-peak method whereby the quantity of
 stormwater runoff is not mitigated on-site.

Others:

Fire Department: The Fire Department is currently reviewing the application. Staff
anticipates that a memo will be included in the Planning Board's packets for the July 23rd,
2007 meeting.

I. FINANCIAL AND TECHNICAL CAPACITY

The applicant has submitted documents of financial and technical capacity.

J. RIVER, STREAM OR BROOK IMPACTS

• The project site is adjacent to the Presumpscot River. The project has been designed to treat the quality of water discharged into the river. This system is being reviewed by the MDEP in accordance with the Stormwater Management Law.

- The stormwater management plan calls for water to be discharged to the river prior to flood stage. The beat-the-peak method is appropriate for a site adjacent next to the river.
- The applicant received a Conditional Letter of Map Revision for Fill (CLOMR-F) from the Federal Emergency Management Agency (FEMA) on May 8, 2007. The map revision will amend the flood rate maps once the as-builts for the project are submitted to FEMA.

CONCLUSIONS

- 1. The proposed subdivision **will not** result in undue water or air pollution
- 2. The proposed subdivision **has** sufficient water available for the reasonably foreseeable needs of the site plan.
- The proposed subdivision **will not** cause an unreasonable burden on an existing water supply.
- 4. The proposed subdivision **will/will not** cause unreasonable soil erosion or a reduction in the land's capacity to hold water so that a dangerous or unhealthy condition results.
- 5. The proposed subdivision **will/will not** cause unreasonable highway or public road congestion or unsafe conditions with respect to the use of the highways or public roads existing or proposed.
- 6. The proposed subdivision will/will not provide for adequate sewage waste disposal.
- 7. The proposed subdivision **will not** cause an unreasonable burden on the municipality's ability to dispose of solid waste.
- 8. The proposed subdivision **will not** have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat identified by the Department of Inland Fisheries and Wildlife or the municipality, or rare and irreplaceable natural areas or any public rights for physical or visual access to the shoreline.
- The proposed subdivision **conforms** with a duly adopted site plan regulation or ordinance, comprehensive plan, development plan, or land use plan.
- 10. The developer **has** adequate financial and technical capacity to meet the standards of this section.
- The proposed subdivision is situated entirely or partially within the watershed of any pond or lake or within 250 feet of any wetland, great pond or river as defined in Title 38, Chapter 3, subchapter I, article 2-B M.R S.A.
- 12. The proposed subdivision **will/will not** alone or in conjunction with existing activities, adversely affect the quality or quantity of ground water.
- 13. The proposed subdivision is situated entirely or partially within a floodplain.
- All freshwater wetlands within the proposed subdivision **have** been identified on the plan.
- Any river, stream, or brook within or abutting the subdivision **has** been identified on any maps submitted as part of the application.
- 16. The proposed subdivision will/will not provide for adequate storm water management.
- 17. If any lots in the proposed subdivision have shore frontage on a river, stream, brook, or great pond as these features are defined in Title 38, section 480-B, none of the lots created within the subdivision **do not have** a lot depth to shore frontage ratio greater than 5 to 1.